

## SEQUENCE LISTING

<110> Salceda, Susana  
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<120> Compositions and Methods Relating to Breast Specific Genes and Proteins

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<150> 60/268,292

<151> 2001-02-13

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 <212> DNA  
 <213> Homo sapien

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 <212> DNA  
 <213> Homo sapien

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 <212> DNA  
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15

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 <213> Homo sapien

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 <212> DNA  
 <213> Homo sapien

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aaagcactgc tcaaaagtca ttagtgccca tttttgaatt ccccaaacag a 171

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 <212> DNA  
 <213> Homo sapien

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 <212> DNA  
 <213> Homo sapien

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19

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<211> 494
<212> DNA
<213> Homo sapien

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21

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## 23

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24

&lt;213&gt; Homo sapien

&lt;400&gt; 28

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&lt;210&gt; 29

&lt;211&gt; 1139

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 29

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 <213> Homo sapien

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29

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 <211> 434  
 <212> DNA  
 <213> Homo sapien

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 aagattaacc taag 434

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 <211> 197  
 <212> DNA  
 <213> Homo sapien

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31

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<210> 37
<211> 678
<212> DNA
<213> Homo sapien

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<222> (310)..(611)
<223> a, c, g, or t

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32

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 <212> DNA  
 <213> Homo sapien

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 aaaaaaaaaa ggcttggggg aaaccgggg ccaaaagcgg tgtccgggg gggaattggt 420  
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 <211> 633  
 <212> DNA  
 <213> Homo sapien

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 <212> DNA  
 <213> Homo sapien

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 cgggggggaa attggtttcc gggccaaaat ttccaacaat ttgggagaaa aaaggt 536

<210> 41  
 <211> 1206  
 <212> DNA  
 <213> Homo sapien

<400> 41  
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34

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<210> 42  
 <211> 209  
 <212> DNA  
 <213> Homo sapien

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<210> 43  
 <211> 706  
 <212> DNA  
 <213> Homo sapien

<400> 43  
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<212> DNA  
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<210> 45  
<211> 531  
<212> DNA  
<213> Homo sapien

<400> 45  
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tggtctaaaca taaggggggt tatggaaaat attgggtcac ctttaattata ggttttaaatg 480  
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<212> DNA  
<213> Homo sapien

<400> 46  
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gaaagacagg aaggccagct aagaggaggt tttcagagtg cgtagaaagg ctgctctgtg 180  
cttcggcatt tgttctggaa gtgcttcttc gggtggcaaa gattcctagc aaaacctttg 240  
actggaggct ttacagggcc atacacccaa tatcactaat gacagtgttg taaaatagct 300  
tttgtgcacc atgcttagga ttcaaggagg ataaagtata tctttctaaa gttatacttt 360  
agaaaactgtc attccatgtt gaaatgataa acattccatg tttatctttt gtgtaagaag 420  
taaaaaagca aaaattcatt gcatcaaagt aggtcaggca ctgctaaag 469

<210> 47  
<211> 483  
<212> DNA  
<213> Homo sapien



37

<400> 47  
aaaccgagtt ctggagaacg ccatcagctc gctgcttaaa gccgtgtttg ctctcatttt 60  
ctcaaagaaa tctgttttag tttagatta cagtttatca aatgttaagg ctttgacccc 120  
aaaatctggg cccagaaaga caggaaggcc agctaagagg aggttttcag agtgcataga 180  
aaggctgctc tgtgcttcgg catttgctt ggaagtgtt cttcggttg caaagattcc 240  
tagcaaaacc ttgactgga ggctttacag ggccatacac ccaatatcac taatgacagt 300  
gttgtaaaat agcttttggt caccatgctt aggattcaag gaggataaag tatatctttc 360  
taaagttata ctttagaaac tgtcattcca tgttgaaatg ataaacattc catgtttatc 420  
ttttgtgtaa gaagtaaaaa agcaaaaatt cattgcatca aagtaggtca ggcactgcta 480  
aag 483

<210> 48  
<211> 600  
<212> DNA  
<213> Homo sapien

<400> 48  
tccattttctc atggcttgct catcttccgg cttcaggctc tgacttcac tcaggatggg 60  
atcgggtgtgt gtctgttttc atagatccac tacatcagaa gtatctttac atctctgtat 120  
ctttacatcc caagggtcaag gccctggcaa cctcagaggt tcccatagct tcagtcttcc 180  
ccaaaccatg ccacttcctc ccatttcttt gggtcaggaa tctggctttt gttttccata 240  
tttctttttc ccaagacatt gggaggcatc tggatgaaca caccaataaa acagttctct 300  
ccccaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaac aaaaaacgaa 360  
gaacaaagaa cagagaaaaa aaaaaacaag aaacacaaaa aaacaaaaaa gaaaacgcgg 420  
ccgccagcgc acgcgcgagg gcgcgcgagc acaccctgtg gccagccgc gagcgagaag 480  
ggagcgggcg gggcgggagc gaccggagac ccaaggaggc cgcaggagc aacgaacggg 540  
agccggagga gcgcgacact gcacgcagga gagcagacgc gaggggagac agcgcgggga 600

<210> 49  
<211> 1098  
<212> DNA  
<213> Homo sapien

<400> 49  
aacctcttca acaataaatt gctctttggg gacattttat gcacagaact gtgcaccctc 60  
ctcagaacag cagggtcttta atggcccatg tgatgagaag ggcccatca aggagcagg 120  
aatgggccac tctccacac cccatgggac aggcactgc cactcctgct gccctgcac 180

38

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cccagggttta tggctgcatg gtagaagtca cttctgtaag aaattcacct ttctaaaata 240
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tgatttggtat tttttttatc ctttaaccgt gtgaaaggat ggaagggatt ttaggtggaa 360
gagaagttaa gaacagaaag atagagcagg tttttagagt gggagaatta atcccaaaga 420
aaaagagggc atggaaacaa atgtggatgc catgggctct gtgccagact tgccagtgct 480
gactggaaca ggccgggctc ctactcagc ggctcctgcc tcagctgtgg tccccgcagc 540
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cggtctcagg ctctgacttc atctcaggat gggatcggtg tgtgtctgtt ttcatagata 660
cactacatca gaagtatctt tacatctctg tatctttaca tcccaaggtc aaggccctgg 720
caacctcaga ggttcccata gcttcagtct tcccaaacc atgccacttc ctccatttc 780
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aactcattcc tgcacacaca gcacacgtgg aatttgcttg tttagtctat gttcttgact 960
tgatcacaga cgctgtaca ataaagcccc ttttcaacaa ggtgctgcag aatgataatg 1020
ctttcccaa aatctgaaac tgatttgtat cattgaagtt tttttctgta ttaaaaataa 1080
agcaaaatta aaaataaa 1098

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<210> 50
<211> 540
<212> DNA
<213> Homo sapien

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<400> 50
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gtggccggca catcttctga gcctcgtct ctcatctgaa agtggagtgt aagccaaga 120
agattcattt agacaaagaa ggtggaaaaa aaggactttc tgggccagca agtcggatga 180
ccacctcca aggggcagag gagggcccat tttgtgaaga agaaatcaac taccggaaa 240
acgccacagg aggacatgtt tctgcagatg tagttgccct agaaacagaa gagtatgggg 300
gtgtgaatgt cttctctttt gggggcaaac actatgtcct tttctttttc tagatacagt 360
taattcctgg aaatttttagc gagtttggtc ttgtggatat tttgaacaat aaagagtgaa 420
aatcaaaaaa aaaaaaaaaa aaaaaaaaaa accctgggag gtacccatgg cgcaaagcct 480
ggtcccctgg ggggacactg ggttaccgg ccccaattc cccacaattg cggagcaacg 540

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<210> 51

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<211> 1028  
 <212> DNA  
 <213> Homo sapien

<400> 51  
 cggccgcggc atgaaaggcg gcgaggagag gcagcactgc tgctcttgac ttctgagcag 60  
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 ccgcgagctc tgagtccgga gcctcccagc cgtggagccg tgggatgagg ggggcgttgg 180  
 gggacagggc aaagtcgac ttggttgtag agccgcccga tcctagcgcg gagctgcgag 240  
 cctgaccggc cgcgtctggc atggtcagag aaagaatttt cttttcccaa ctccggcttt 300  
 tgggtttgtg tgtccacctt gcgcaactcc ggagccagcc gaccccatat ggattctcaa 360  
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 tgaccaccct ccaaggggca gaggagggcc cattttgtga agaagaaatc aactaccgga 540  
 aaaacgccac aggaggacat gtttctgcag atgtagtgc cctagaaaca gaagagtatg 600  
 ggggtgtgaa tgtcttctct tttgggggca aacactatgt ctttttcttt ttctagatac 660  
 agttaattcc tggaaatttt agcgagtttg ttcttggtga tattttgaac aataaagagt 720  
 gaaaatcact ttggagtcac ttaatcttcg ttagaagggc agtttcttcc agggccattt 780  
 tctttcacca gatattgttt tcctcgttcc caaatgaggt agttttaaaa atcaaagtcc 840  
 acttgctaac tcacctggga aagagactgc gacagaagga agagaagtaa atagacatca 900  
 ctctcaaact aaaagtgtaa ctttcattcc tggcagctga gattcagaac acaaagaaac 960  
 aaactcgttt acctttgagt atttcccccg tatgggtaat ttatctagag ctttcccaac 1020  
 aattaatc 1028

<210> 52  
 <211> 541  
 <212> DNA  
 <213> Homo sapien

<400> 52  
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 ttaaagtgtg tttctgacac cagtagcatt gacttcactt agaaacctgt tagaaataca 180  
 aattatattg cccaccccaa cacttgagtc acaaaacttg cagatggggc tcaatctggt 240  
 ttaacaagcg cttcatgtaa ttttgatgca ggcctaagtt tttgagccgc tgcagtatgc 300  
 atttctattt ttaagcaaag atcttgggtc ttttttttgg acattgtaga aataacatga 360

40

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acttgctttt tgtttgtttt ggttttgttt tgttttaagc tcctgatctt tgttggttat 420
gttgcaaaag attgtatcag gagaagcctc agcatggaca ttggcatcct gacataaccc 480
ccattaattt agtattcttt ctgaaactca aatggattct caagtccaag agactatgga 540
a 541

```

```

<210> 53
<211> 261
<212> DNA
<213> Homo sapien

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```

<400> 53
atgccatcag tggcacaggg ccctgtgccc tggcatctgg gttcacgctc tgetgttgct 60
gtcttcgaat tcctagtgat gtttgaacaa aggcctatg tttgcatttt gcaactgggcc 120
ccacaaatca catggcccat cctgagaaga ggagtctcac acctccagtc tcctaaatca 180
cctctggaag tttttctcaa cgaaagaact gaagctttcc tcaaaagttc cgtagggggag 240
acagttcatc accataccca a 261

```

```

<210> 54
<211> 325
<212> DNA
<213> Homo sapien

```

```

<400> 54
gctctgtttt gtgttttggt tggattgtgc tggttgtggt ttgtgtttgt ggaagggtgtg 60
tgtgtggggt tggcgagtac atgtcgcccg ggaccgctat ggctctgggt gcgcccacgc 120
tttttttttt tttttttttt tttttttttt ataataacc tataagggat ttatcaataa 180
ataaaccttt atttattata aggaattggc ttacacaata atggaggccg agaaggcccc 240
aagtctgctg tccgaaggtc tgagaaccag gagcactgat ggtgtcagtc ccagttcaag 300
ggcaggagaa gatgggtgtc ccagc 325

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<210> 55
<211> 2461
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (356)..(393)
<223> a, c, g or t

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<400> 55
gcctgaatag agctgtgcag cccaaggggt ggactgagcc agcagtggat atgcaccact 60

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agaaccagga gactgatgg tgctagctcc agttcaaggg caggagaaga tgggtgtccc	600
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catggaggcc agaaatttta tgtattctga ggactctgtc tctctggctt cctctccatt	900
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42

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cagcacatag tagaaactta acatatattg agttaaataa ttcaaagggt ttatccgatt 1980  
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a 2461

<210> 56  
<211> 643  
<212> DNA  
<213> Homo sapien

<400> 56  
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taatgtgtgc ctcttgga cgggtgttg gtgtccatgg aacttctct ctgtatctca 180  
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acccaagact gcaccagtgc ctgctcattg aggagagtaa ctgctggcca ggacagaaaga 360  
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gaggagttag gagttcatgg ctatcatggg tgtgttcaat cgattgtggg gatgacatgt 480  
cattgtgtat ggaaggcggg gctcatggct gattggccaa taaaatggcg gctgccgttg 540  
tcattgaaaa aacacaccac accacaacca aaaccgctgg ggcacaccgg ggcacaaggc 600  
ccccgggga aacgggttcc ccgcccatt tctccaaatt aga 643

<210> 57  
<211> 1611  
<212> DNA  
<213> Homo sapien

43

<400> 57  
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 atgggaccag cgactgagag agccagaggc agagaggtga gggtgaccat atcctggact 180  
 gtgagaggaa tgggactctg ggctgttagc tgccaagcag gtggcaggtg ctccaggctg 240  
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 ggccgtgggc ctggtggcag gctgtggcgc gggcggcgtg gcactgctgt caaccaccag 480  
 cagccgctca ggtgaatggc ggctagcaac gggcactgtg ctctgtttgc tggctctgct 540  
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 ccaccatgtg gccctgctgc gcagtgggtg aggggccgac gccctcgtgg tgctgctcag 660  
 tggcctcgtg ctgctgggtc ccggcctgac cctggccggg ctggccgccg cccctgcccc 720  
 tgctcggccg ctggccgccca tgctgtctgt gggcattgct ctggctgcct tgggctcgtc 780  
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 aggacagttg tctgctggcc ggcgtcacga gaccacatcc agcattgcca gcctcatctg 960  
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 catgggaagg ttaatgtgtg cctccttgga actgggtgtt ggtgtccatg gaacttcctc 1200  
 tctgtatctc aggtcagtag gcgcagaaac gcctcatgat gaagattctt gagccccatt 1260  
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 aggcagaaag aatatgggct ctgcaatgag acagacctgg aggggactct cccgttgagc 1440  
 actagcagct ggaggagttg ggagttcatg gctatcatgg ttgtgttaat cgattgtggg 1500  
 gatgaaatgt cattgtgtat ggaaggcggg gctcatggct gattggcaat aaaatggcgg 1560  
 ctgccgttgt cattgtctcc aaaaaaaaaa aaaaaaaaaa aaaccgcgga c 1611

<210> 58  
 <211> 617  
 <212> DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 58

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actgtgaagt cttcaggctc ttagaaggct ccagcctgag agagcccttt attattgcca      60
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agatggggccg tcatccgggc ctgtaagccg tactatgatt tctgcattga tttacatatt    180
ttttactgtg atcttggttc caaacacaga atcgtcaccc cattctccct tgaatgtgcc    240
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ctatgttcaa gaaagaaatc atacaaagag taacgaacca tggttctgtt ggccattgga    360
cgaaacttgg tttttggact ttcttaccta acattaattt tgctcttgcc tcggtttaca    420
cacacacaca cactacaaca aacacaacac aaacaacggt ctgggccaac accacgcggc    480
gccagcgccg gctccctggg ttgaaacttg gatctcttcc cgcgccacaa ttctcccaac    540
aactataatg agcacaagga ccacaacct acacaagaac aacacaaaacc agcgacacaa    600
cagagacaac acacaac                                     617

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&lt;210&gt; 59

&lt;211&gt; 913

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 59

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caaaaccaca cccatgcaca cacataacct cagccccac acacaccccg ttgaaccggt      60
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tgttttccag ggatggggtc tcccagggtc agatagtgcc ttgggtgca aatgctcctt    180
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tgtgaagtct tcaggctctt agaaggctcc agcctgagag agccctttat tattgacatt    360
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tactgtgatc ttggttccaa acacagaatc gtcaccccat tctcccttga atgtgccgga    540
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gttcaagaaa gaaatcatat aaagagtaac gaaccatggt tctggtggcc attggacgaa    660
acttggtttt tggactttct tacctaacat taattttgct cttgcctcgg tttacacaca    720
cacacacact acaacaaaca caacacaaac aacgttctgg gccaacacca cgcggcgcca    780
gcgccggctc cctgggttga aacttggtac tcttcccgcg ccacaattct cccaacaact    840

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ataatgagca caaggaccac aaccatacac aagaacaaca caaaccagcg acacaacaga 900  
gacaacacac aac 913

<210> 60  
<211> 554  
<212> DNA  
<213> Homo sapien

<220>  
<221> misc\_feature  
<222> (304)..(430)  
<223> a, c, g or t

<400> 60  
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tgacatctag ggcagaatgc tgccattttg aggggcaggg ggtcagctga tttctcatca 120  
agataataat gtatggtttt tactaagc aactgataaa tggacaattt atcactggac 180  
aatctccctc tgcttcttta atggggccag ctttgagccc ctgcagcctg ggtagtcgca 240  
cacatttcca tgcattcaag gccccgtgc ttgggagaat gatctgctag tgccatttta 300  
aatnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 360  
nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn 420  
nnnnnnnnnn tcaactgtgc cggcataaag tagaacattc ttacaagaaa taaatatttc 480  
gtagtcatgg agaagaacgc gaaaaaaaaa aaaacaaaaa aaaggctggg ggtaaccagg 540  
gccaagcgg ttcc 554

<210> 61  
<211> 1401  
<212> DNA  
<213> Homo sapien

<220>  
<221> misc\_feature  
<222> (803)..(929)  
<223> a, c, g or t

<400> 61  
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actctgctat agtttgctg cttttgtgga caccctcat gaacaggctg gcgctctagg 180  
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46

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 <212> DNA  
 <213> Homo sapien

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47

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 <213> Homo sapien

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 <212> DNA  
 <213> Homo sapien

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 ccaccttgcc caacagtaga aaaacataag aagagaaaaa cattaaaaaa tgacaaggaa 240  
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 <211> 377  
 <212> DNA  
 <213> Homo sapien

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 ttttatcact tttaaagtaa cttgactatg ttcaccctga gtgctcttgc ctgagtatgg 180  
 caactgatta tgagtgcagg ttaagagcaa caccaggga tacagaaacc cacgttaagt 240  
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gtcaaaaaca gaactgttcc tgcctttcac cccaaaatat ttaaaactaa atctaagcca 360  
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<210> 66  
 <211> 1703  
 <212> DNA  
 <213> Homo sapien

<400> 66  
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 tggggtgaaa ggcaggaaca gttctgtttt tgaaatacag gttttctttg ggattgtttt 360  
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 ggtgttgctc ttaacctgaa ctcataatca gttgccatac tgaggcaaga gcactcaggg 480  
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50

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 aaaaaaaaaa aaatgagcgg tcg 1703

<210> 67  
 <211> 456  
 <212> DNA  
 <213> Homo sapien

<400> 67  
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 tttggcaaac ttgcctgca gaatctactc aagctt 456

<210> 68  
 <211> 380  
 <212> DNA  
 <213> Homo sapien

<400> 68  
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 catctatgaa tctgtaggca gacctgaagt ttgaacgact ggtgaagaca tctgcatttt 240  
 ctttatagcc aagttaggat acaaaaaatg caaacaagtc attaataattt actatatgca 300  
 agatacagaa acgatgaacg gaaggagtaa gaagttatcc ttcgtggaac tatttaaagc 360  
 aaaaatgcaa aataccaggg 380

<210> 69  
 <211> 2177  
 <212> DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 69

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52

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<211> 226  
<212> DNA  
<213> Homo sapien

<400> 70  
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<210> 71  
<211> 2554  
<212> DNA  
<213> Homo sapien

<400> 71  
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54

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 <211> 583  
 <212> DNA  
 <213> Homo sapien

<400> 72  
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 tctgcaggct cagtgtgtcg taagtgagg gtaaggggag ggcaagtgtg gacggatgaa 180  
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 <212> DNA  
 <213> Homo sapien

<400> 73  
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55

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<210> 74  
 <211> 401  
 <212> DNA  
 <213> Homo sapien

<400> 74  
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<210> 75  
 <211> 1847  
 <212> DNA  
 <213> Homo sapien

<400> 75  
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56

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<210> 76  
 <211> 522  
 <212> DNA  
 <213> Homo sapien

<400> 76  
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57

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<210> 77  
 <211> 1643  
 <212> DNA  
 <213> Homo sapien

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58

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<210> 78  
 <211> 755  
 <212> DNA  
 <213> Homo sapien

<400> 78  
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 taagattttt ttaagcagac ttgcttaata aggcaaggag tggggtcagg ttgttctagg 180  
 ggccagcaga aggggtctaaa atacagggtg gtgaaaagag attacgagac tagtgagttt 240  
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 gctggcagtc aggaaggctg ggtttcgggt ctgatcttgt caccaactat gcaactctga 480  
 acaagtcact tcacttcact atcctaagcc tgttatctca tctgaacaaa taacaggggt 540  
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 aacatatcta tgtctgacag ataggatagt cctacatatt caggaaactc cacgtatagc 660  
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<210> 79  
 <211> 1002  
 <212> DNA  
 <213> Homo sapien

<400> 79  
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ggccaaaaag atctagaaag tttaaatacca atgtgcagga gctggcattg cctagctaata      900
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<210> 80
<211> 374
<212> DNA
<213> Homo sapien

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<400> 80
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aaatttgga ctacagtagc atataggttt tcagtttatt tactactaac tagctataac      300
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accagaaatc tctt                        374

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<210> 81
<211> 399
<212> DNA
<213> Homo sapien

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60

<400> 81  
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 gaacagtatt taacttcagt tcaacagctg gaagatgctg atgagaggac caattttgat 180  
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 gattctacat ttcagctatt gcatgttggt gttactgtg 399

<210> 82  
 <211> 517  
 <212> DNA  
 <213> Homo sapien

<400> 82  
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 gtttgcatat aaaaggtaga cagctgatat gttttcatga ataaatattg tcagccagaa 480  
 aaggttggtg tcaggtaatg catatttttt taagctt 517

<210> 83  
 <211> 619  
 <212> DNA  
 <213> Homo sapien

<400> 83  
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61

ctctgggctg tgacagtttc tcagactttc cttaatatca tacaattctc caattttaaac 420  
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<210> 84  
 <211> 646  
 <212> DNA  
 <213> Homo sapien

<400> 84  
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<210> 85  
 <211> 419  
 <212> DNA  
 <213> Homo sapien

<400> 85  
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62

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<210> 86

<211> 2133

<212> DNA

<213> Homo sapien

<400> 86

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63

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<210> 87  
 <211> 493  
 <212> DNA  
 <213> Homo sapien

<400> 87  
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<210> 88  
 <211> 1412  
 <212> DNA  
 <213> Homo sapien

<400> 88  
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65

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66

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aaccacacca caaccaaaca aaaaagggtg ggggacaacc aaggggcaaaa ggggtgtccc 660  
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aaaaaaccac aaaaaacaca cataca 746

<210> 96  
<211> 978  
<212> DNA  
<213> Homo sapien

<400> 96  
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73

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cccgtagtgc ccagctcata acatcctctc cattaagatt gaccacaggc aacttaccat      900
tgactaggac caagtcccc aaacacaaaa attgagaaca gagcaacatg gtgccaaaca      960
tatcacagag aaatcaac                                          978

```

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<210> 97
<211> 787
<212> DNA
<213> Homo sapien

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<400> 97
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gaaatagaag acaggtggaa taagtatatg ttcagagttt ttagatgtgt tgagtagaga      180
cggtataaat ggaagcatta aatacaaatg aaaatcacac cagatatccc tgaaattcaa      240
gcaaagaaag ttcacatgtt attcttgggc agcaagagaa aggactaggg ttatggcaat      300
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gcccttattt gtaattaaca tcaaaagact agatctgaag ccttcataa atgagagacc      600
attcatatgg cattcctgga acaaaacact gcacaggtag caaggctctc cactccctga      660
cgggttggtg ctgaacagtc agggattgtc ttgactagac ttctgatgct tctgcatctt      720
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acctagt                                          787

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<210> 98
<211> 3670
<212> DNA
<213> Homo sapien

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```

<220>
<221> misc_feature
<222> (3416)..(3416)
<223> a, c, g or t

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<400> 98
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<210> 99  
 <211> 938  
 <212> DNA  
 <213> Homo sapien

<400> 99  
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 tgctgcagta aataactagt ttgagtagaa ctagatcctg tctatctatt tggcacatgt 180  
 tctgctgcct ggggagtaag caagctaaag ggatgagaaa gaccacctcc cctaccctg 240  
 gaaattgcac tgcaaggcag ggcgagaatg gggtagctgg cagacctggc ctccttgctc 300  
 ccagtcttag ttatttcttg cagagattca gtattcagta aagaatagca ttcaattagt 360  
 caaaaaatat atatctaact tcttccttcc ccttcccatg aatcattgca cgtcattccc 420  
 taagctttct tctctttcca cctcatggcc tgctcagtct tcccatccct accaatcaca 480  
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 acctttcatg atgccactca gcattctcaa tacctttcat gggctctctg ctgccaaagg 660  
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 ctggatgcgg ttgcgcgaaa agttgcttaa tgactggg 938

<210> 100  
 <211> 376  
 <212> DNA  
 <213> Homo sapien

<400> 100  
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 actaaatcaa tttcatttaa aatatctcgg ctactactct gcattctcac tgctaccatc 180  
 ggctctcca gtcacattct ccaagagcac tctatctcat ttaaaagaca aaatctctgc 240



77

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 tctgtaaaac tttcccttgg tcaactgtgt tcagccacat taaccagctt gcatatttct 360  
 cacattcacc aagctt 376

<210> 101  
 <211> 3661  
 <212> DNA  
 <213> Homo sapien

<400> 101  
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 ttttgcagat gtgattctga gattgagaga ttatgccaga ttatccaggt aggcccaaaa 180  
 tgtaatcacc acagtcctta taggagagggc aagaaagtca agtgtagaag gaggcgatag 240  
 aaggagagag ggatttgaag attaataggc tgcttgcttt gaagacagag ggaagggacc 300  
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 gtctctggag ggagtgcagc tttgatttct accgagtaaa attgattttg tacttcagac 420  
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gcagtggcct gtgatgctcc ttaatggcct acataatcca gccctcaagc acctccgtga	1740
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cagttaacac tttttccctc gaatctcctg agcagattta cattgaccgg acccgtagca 3660
t 3661

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<210> 102
<211> 698
<212> DNA
<213> Homo sapien

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```

<400> 102
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tcagggacat tttcatcagg cacagtgtct caggctacgg cactctgtat tgttccctgg 180
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aaaccttacc ctcggtgaaa tctcccagca gatcagcaac gaaatggact aagcaacttc 360
ggtagaaaca catggggcta ggatataaac agttcatagg aaaggacacc tgatatcatt 420
aatgattagg gagagaaatt gggtagctaa cagcaggggt gagagagaaa ctttatagta 480
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taaagtataa tttttttaaa agagaaattt ggagtcattt aacttgtaag acaaaggcta 600
tcttgaataa agaatactgt tcttcctatt tgctctagat tttaagtttg gatgggctac 660
atggtttctt agggcagaac cactcttata gactattt 698

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```

<210> 103
<211> 1217
<212> DNA
<213> Homo sapien

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```

<400> 103
acattttccat ttccaccggc ttggagcaga gctgtcgagg agtgctattc taggatcctg 60

```

80

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atctttaatt aagcgggt 1217

```

```

<210> 104
<211> 193
<212> DNA
<213> Homo sapien

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<400> 104
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ttttaaaatg aagaccgtct aaatttttct gaccagttat tagttgccct gcctctcgga 120
aatgtgttta aacttttctt tcaattattt gatacctttt gcccaagaga ttactatctc 180
tctctttttt ttt 193

```

```

<210> 105
<211> 542
<212> DNA

```

<213> Homo sapien

<400> 105

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tgtaagtgtg tgtatattta tatatgtata cagtacagtt ttcacaaaaa gtttcaacat    180
tcctaagaaa cacagacata gtcattcttg tacaatatgg atttaaaata agttcatggg    240
aatccttcct gatgccattt ttaaaatgaa gaccgtctaa atttttctga ccagttatta    300
gttgccctgc ctctcggaat tgtgtttaaa cttttctttc aattatttga taccttttgc    360
ccaagagatt actatctctc tctttttttt ttttctttta agacagagtg ttgctctgtc    420
actcaggttg gagtgcagtg gcacaattcc tgatcactgc aacctctgcc tcccaggtcc    480
aaacgatcct cccacctcag cctccccagt agctgggacc acaggcacat accaccaagc    540
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<210> 106

<211> 715

<212> DNA

<213> Homo sapien

<400> 106

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ccgcccgggc aggtcctaaa tagaattcaa gattagacta aatgattttc agcagagcac    60
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ttcctgtagg attttgctac aaataacttt gggaatgaat aaagtggaat ggtaactttc    180
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tatgaagtga gatgtcatat cctgaatata gtttgtcttc cccaattact tgatagcatg    300
tctgtcagcc agtaaagatt aagaacagag tttctctaaa ttctccgat tattccacta    360
aggcacatta aaatacttaa ttttgggaaa ccagacatca cagatttctc catgaagtcc    420
taaactttct ttaaagtcag aataggtatc ttagttactg acagtattca ggtttttttc    480
tcccttggtg atatgtcatt ccatcagtg aaaaatattt tctcccaagg gatatagaaa    540
ggatttctgg taatacatca tcatcaatcc tttaacagta acagtctggc acttatcaca    600
aaaacgacca tttcttataa ccagaaagat atcttagatg tcttcacata tattttactat    660
gctgtagata aagatgcccg gggtatgggc tccatttcat ggctggggtt acgtg        715

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<210> 107

<211> 1716

<212> DNA

<213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (1594)..(1594)  
 <223> a, c, g or t

<400> 107  
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 tagaagaaaa tccttgctat ctatttttttc caatagaaga aaatcctgct atttatttta 120  
 tttgatgaat aaacaaattt attgcagtag cttaaaaaaa tttttttttt aaacagtctc 180  
 actctgtcgc ccaggctgga gtgaagcaat gtgatctcag ctcaactgcaa cctccacctc 240  
 ccgagtagct gggattacag acatgcacca ccaccctcag ctaatttttg tatttttagt 300  
 ggagacgggg ttctgccatg ttggccaggc tggctcttaa ctctggcct tacgtgatcc 360  
 gccccccctt ggccttccaa agtgctggga ttacagggtg gagccactgc acctggcctg 420  
 tagtagctta aaattttcct tgagaaaatt cctgacttta aaaataacct ttatataagt 480  
 acaagtgatt gtgacaaatg acgtaaaaat ggcattcatg atgtctgaaa caagcctaaa 540  
 tagaattcaa gattagacta aatgattttc acaaagcaca ttcaagggtt tacattctat 600  
 gattgaaaaa aattttttga aaacttttta tttcattctt tcctgtagga ttttgctaca 660  
 aataactttg ggaatgaata aagtggaatg gtaactttcc agtggttcag aattgaatta 720  
 gacttcttgt gactgtgatg tttggtttcc attgaaatat atgaagtga atgtcatatc 780  
 ctgaatatag tttgtcttcc ccaattactt gatagcatgt ctgtcagcca gtaaagatta 840  
 agaacagagt ttctctaaat tcctccgatt attccactaa ggcacattaa aatacttaat 900  
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 cagaaagatt atcttagact gtccttcaca ttatacttta cctactgcct tgtaagaata 1200  
 agagttgctc actgtgttta ctgctgtcc tccatattct ccattgcacc attggtgat 1260  
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 tgagaatgca ctgaaaaaaaa aaaatgctag tgacttcagc aagtcataat cttcctgcgg 1500  
 gtggagggtc tcaactgcgat gtggatggcc gctggggctg accagggtgg tgggtggaga 1560

83

aggctggggc ggctgtggca gtttcttaaa atangacaac aatgacattt gccacattga 1620  
tagacttttc ttttcacaaa agaagtctct gtagcacgtg gttgctgttg gtgcacttta 1680  
cccacagtgg aacttctttc aaatagtctc aatcct 1716

<210> 108  
<211> 666  
<212> DNA  
<213> Homo sapien

<400> 108  
tcgcggccga ggtacttaat aatgactgaa tttcatgttc ctacagtcac acatattcat 60  
tagaagtttt atgttggttg tctgatctga ttcttctttg tttgtgggtg gaacggcact 120  
gagagaagta tagtttttta aacttgaaca tgttcagtag ttacattgcc ttagaaaacc 180  
cagacacata gcagtggaaa tgaaagaaat ggcacagaa gtgacttaat ttagcaattg 240  
tgattcctct tgtaaaacaa aacaaaaaaaa caatgccata ttttttgag aaaagtgggc 300  
aatatagggg tttcgtgtgc tgtttcacia gaagactcat ttgttctttt gggggaacca 360  
gtgccttaca gatattgtat atactgtaat tattcaggac tagggaacaa acaattgtat 420  
tgtatttggt acagattgta tatggctttg ttttaacatt cccctaaata aaatggcttc 480  
attctcccct tggaaaaaaaa catgactgtt atgttataaa aaaaaaaaaa aaaaaaaaaa 540  
aaaaaaggtg ggggtaccgg ggcaaaacgt gtcccggggg gaatggtttc ccggcccaca 600  
aatccccac attgcgagaa aaccgtgcga aaaaaaaaaa aaaaaaacg aaaaaaaaaa 660  
acaggg 666

<210> 109  
<211> 1983  
<212> DNA  
<213> Homo sapien

<400> 109  
gaatttcgta atccttgaaa ttgaaaaaaaa aaaaattgtg tttttaaaga gtgaaaacag 60  
ttaggaaaca agtagaactg taatcagaac gctgcttcaa ttgatattaa aaataacctc 120  
aataataatg taaagggttc tttctcttgt gtcagttata ttcttaggga tagcctagaa 180  
ggaatatatg gttagaacta agtgtgacta atcatctgag ccttgaagag aaacttcagt 240  
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tgtttttggt tcttggtttt ttcttaaatt taagtgggtg tgggcttacc ttgtagataa 360  
aattatgttt tcttttttgt aaatacttga atgtggataa cgtcaaatca gaatattttg 420

84

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tgaggagggtg atgatttgaa attaagctag atttctaggg aggtgttggt tccaatgaag      480
gatgggaaga aattaaata gtcttcaaac ttcttcctta ttatatttgg ttgctttgga      540
aaagattgggt cctatcctca atctaattta ttactatta atattttaaa aacattcctg      600
agatacttaa aaagaccac ttagcgatta tagttgctca atgaaacaag aatttattta      660
tgcatagatt tttctctgta tcttaccaa atccacttta cttagataac actaaattgt      720
tcttaaagac tactcatctt ccaataatcc tttatgattt caaaatttct agtgggtcag      780
aagtgaattt tattttattt gtctttcact tgaataaatg agaaccaga aattaataat      840
gttgtttatt gcttactgtc aggactattt caaagactaa gaagagtttc ttctaaccac      900
tccctctcaa aggaatccta aattattagt tggtagataa gttttgtatg ctaagatatt      960
caggtttata gtttatgtat gtgtgtatat atataaatat atatgtatat ataaatatta     1020
tgttcagttt ggagtctggc acaactccat tatgtggatt agagagtaag atattatgga     1080
tgataaagta ctaaatgaaa cataatattt atttataaaa gtgtgtagat tgtaaataca     1140
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acacatagca gtggaaatga aagaaatggc atcagaagtg acttaattta gcaattgtga     1560
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ccttacagat tttgtatata ctgtaattat tcaggactag ggaacaaaca attgtattgt     1740
atttgttaca gattgtatat ggctttgttt taacattccc ctaaataaaa tggcttcatt     1800
ctccccttgg aaaaaaacat gactgttatg ttataaaaca aaaaaaaaaa aaaaaaaaaa     1860
aaagggtggg gtaccggggc aaaacgtgtc ccggggggaa tggtttcccg gccacaaat     1920
ccccacatt gcgagaaaac cgtgcgaaca aaaaaaaaaa aaaaacgaaa aaaaaaaca     1980
ggg                                                    1983

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<210> 110
<211> 758
<212> DNA
<213> Homo sapien

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<400> 110  
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 tgctcgagcg gcgcagtagt gatggatcga gcggccgccg ggcaggtacc taacatatag 120  
 tagacagtgg agagtggttc tctttcgttg tctcaggggc agacagatgg ggtgctggag 180  
 tcctctatca aagagtcaga gctctatccc agatgtgtaa tgaacgtggc cacagacata 240  
 ttgtcccatt accatattacc ttccctataa ccactgtgcc tccagccttg tagaatagac 300  
 acataggagc gcagcaatac gtctaaaaat aggagtgaga gagggcaggg catgcccggt 360  
 cttgtggtag aagaaaagaa tgtcaaagaa agcagctggg actaatgaac ttacattag 420  
 ccatattcca ttatttcagc ttaagtcaaa tgtcggtcct catgaggcaa ctggccttga 480  
 caggagctac gctaatgtgc cacttaccaa cctttaattt ctgggtaaaa gcagaaagag 540  
 aaaaactaat ggatttttca tttccagaa gagacaagaa tcaactacac tagtagtctg 600  
 tcagaacaaa agaaaacctg catccaatta caagaattat tactgtctct ttaataaata 660  
 accacattat taaaaaaaaa aaaaacaaaa aagggttggg ggtaccgggg ccaaggggtc 720  
 ccgggggggaa ttgtttcggt ccatatccat acaaaaaa 758

<210> 111  
 <211> 3575  
 <212> DNA  
 <213> Homo sapien

<400> 111  
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 aacaacctgc tcctgaatga ctactgggta aataagaaaa ttaaggcaga aataaataag 120  
 ttctttgaaa ccattgagaa caaagacaca atgtaccaga acacagctaa agcagtgttc 180  
 agaggggaaat tcatagcact aaatacccac atcagaaatt gggaaatacc taaaatcaac 240  
 gtgctaacat cacaattaaa agaactagag aagcgagagc aaacacattc aaaacaagaa 300  
 ataactaaga tcatagcaga actgaaggag atagagacac aaaaagccct tcaaaaaatc 360  
 agtgattcca ggagctggtt ttttgaaaag attaacaaaa cagatagact gctagccaga 420  
 ataataaaga agaaaagaga gaagaatcag atagacacaa taaaaaatga taaaggggat 480  
 atcaccacta accccacaga aatacaaaact gccatcagag aatgctatca acacctctac 540  
 ataaataaac tagaaaatct agaagaaata ggccggggcg agtggtcac acctgtaatc 600  
 ccagcatttt gggaggccaa ggtgggcgga tcacctgagg tcaggagtgc gagaccagcc 660  
 tagccaacat ggtgaaacct cgtctctact aaaattataa aaaattagcc ggggtgtagtg 720

gtacacgcct gtagtcccag ttacttggga ggctgaggca tgagaattgc ttgaaccag	780
gaagtggagg tggaggtgag ccgaaattgt gccactgtac tccagcctgc aacagagtga	840
gacactgtca cacaaaaaag aaagaaatat cacaatatgt cacaataggc cgggcgcagt	900
ggctcacacc tgcagtcca gcactttggg aggccaaggc agatggatca cctgaggtca	960
ggagtttgag accagcctgg ccaacgtgac aaaaccagc ctactaaaaa tacaaaaatt	1020
agccaggcgt gatggtgggc acctgtaatc ccagctactc aggaggetga gacatgagaa	1080
tcgcttgaa cccaggaggtg gagattgcac tgagctgaga tcctgccact gggctccagc	1140
ctgggtgaca gaatgagact ctgtctttaa aaaaaaaaaa aaaaaaaaaa aatcacata	1200
agtcctaggg taaagatggg ggtacagaaa acaattaaat agaacaaaaa caactgtttc	1260
cttttctgt gattcaagaa gggcttagat cttctactca gcatcctttt actaatgccc	1320
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ataatgcccc agatgtactg tttcagggca aaaaggaaaa taatttcaa caaagtgggtg	1500
tgtgtctcac tgtcagatgc ttgcacttac acacggaatc gctgtgcac cgacagaggc	1560
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gaaatgggat ttcccagaac agtaaactg tctgtccttg atttacagag tagctacatt	1680
cctaggaaat ccagggtaca ttaaaactca ccatgttacc caggctggc tcgaactcca	1740
ggcctcaagc aatcctcca catcagcttc ccagaatttt gggattacag gcatgagcca	1800
ccacaccag ccagaatatt ttatttctgt tagacacaga gcgttcgttg actcgtctgg	1860
gcgttagtgt taatattctg tacttgaagc aagcccacca agcggctgaa ctgggtggat	1920
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ttagtctaag gctccaagct tgaaagggtt aaatgaagta ctatatttgt tttgttctgt	2040
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 ttatttagct gtttaatttc ctaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 3240  
 aaaaaaaca aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa acaaaaaaaa 3300  
 aggagggggg gggggcgaga aaaagagccg agggggggagc acagagcggg ccgccgcgca 3360  
 catatgaaaa aagcgaccca gaagaagaaa cacaaaacca gcaagcgcaa acagaagaaa 3420  
 taagaaagag aaaaagttac gagacgaata gaaaggaaat aactacagga ccaacacggg 3480  
 acaaaccaaa agcaaataaa caaagaaaat aagacagaca caagatgcca acgagctaac 3540  
 gcccgacaaa tggaaacagg taaacaacat aaagc 3575

<210> 112  
 <211> 442  
 <212> DNA  
 <213> Homo sapien

<400> 112  
 actgagcagc tacggaagtg caaggcactg taggagtagg gtgagtatac tccccacaag 60  
 ggctcagggg caggcagggg acggtagaga taaaaacca cagaccatac acatagctgg 120  
 cactgtctct gagggttttg tgaggcacac aaatgcttag gagactagac gaagtaagac 180  
 aatgtctttg acatgaggca gaaatcaacg gaaagcatgc gcttttagaa catgtgtggg 240  
 actgtttttt ggtatcagca gactgaagag gcttttttaa cgtggaggga aggcaaactg 300  
 aggcataagag atgccaatac caggtcttgt caggaagaac agagtccaat ttggctgcag 360  
 gatagggcat atgtagggga ggggataaga ctggcatggg ggcagagggg gacttgaatg 420  
 tcaggtgaca gagtcaaagc tt 442

<210> 113  
 <211> 412  
 <212> DNA  
 <213> Homo sapien

<400> 113  
 tgtcatacta taaggcgaac tgggcctcta gatgcaattg ctcgagcggc gcaggatgatg 60  
 gatgttcgcg gcgaggatc agaagctgtg atgtctgcct tgtagtccctg tgcttggttac 120  
 tgtaattttt tttttttttt tacgaagcac gtgactggac taatgtaagg cagatgacgt 180  
 gatctttaag actgctatat atatcagtct cttactctat aagggtttta attagaaaag 240  
 gcttatatgg ttaactacct tagactatat ctacagcagg gtctgggttg ccagaacaag 300  
 tttaaagtgg ctgtttatta agttggctat tttcagaatt gaaactataa gaccgccatt 360  
 tgacactgaa acttgctga atcctaaatt gcacatca tctatttgat aa 412

<210> 114  
 <211> 625  
 <212> DNA  
 <213> Homo sapien

<400> 114  
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 agtgaaatgg ctcagatctt tgttcttggc ccagtccctgt tcagtctttg atcagtgcct 120  
 tgcaatatca cttgatcgac tcacttaaca tttatataag agtgagcagg cctcctcaga 180  
 gaatggatgg tagaaatgca ttgatgagag aacgtttatc tatctatctg tctatctatc 240  
 tatctatcta tctgtctcta tctaagaagt cataaaggct gagtctaata aggcaaaaaa 300  
 aaaaagaaaa aaaaaaaaag ctgtggcgat acccagggcc aaagcgtgat cccggcgcca 360  
 actgcgaat ccgctcaca tccaacaac acccccacaa ccccccccc agccccaaca 420  
 ccaacacctc acaaaaacct cacaacccc ccaccacccc acacagccac cccctacca 480  
 cacaaccaca tcacaccacc accgccccac ccacaccaca caccacacac acactccgaa 540  
 caccaccgcc cactccacac acccaccaac caccagcacc aacacaccca cacaccaca 600  
 ccgccacccc cacaccacac gcagc 625

<210> 115  
 <211> 378  
 <212> DNA  
 <213> Homo sapien

<400> 115  
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gctactagta tgtatctgac agttcctaata agctaagagg cctaagaatg cagacgggga 120  
 gaaaaaaaaa caaaacaaaa aaaaaagaca cctctccaat tgctgggagg gcctgggaat 180  
 aggtgaagat caaaccacag tgggagagga gggtaaagat gtgagcttca agcgggtaat 240  
 gggcaagcca cacctcccag ttcctaggag ggaatcgcca cggccgactt cagcattctc 300  
 gtctttacta agacttacct atagagaact acagcaggaa accgatttct tcattcattc 360  
 tctttaaaaa gtatgaat 378

<210> 116  
 <211> 8905  
 <212> DNA  
 <213> Homo sapien

<400> 116  
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 tctcatatac tagtccttct gtctggaatg cttttcttcc ctgtcacttc atccttcagt 480  
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 ggcacatgtc tccagggtaa acacatgagt gcttgcattc atctttggat ccctgcgttc 720  
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 gttgtccgag agtggattct cttggaaaaa ggtagcatcg agtctctgcg aacattcctt 840  
 ttaacctatg tcttacaag gcccaacctt caaaagtatg ttcgggaaca gattctacta 900  
 gcagtagcag taattgtaaa aagaggatca ttagataaat caattgactg caaaagcatt 960  
 tttcatgaag tcagccagtt gattagtagt ggcaatccca ctgtgcaaac tctggcctgt 1020  
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 ttgagcatgg aattccatgg taactgcaaa aagagttttt caggaagaag accttcgtca 1140  
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 agttctgaga tgtagcaca tacccttttc acaatttagg aagctttaag atcatttagt 600  
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 caaaataaaa tcctgtcaaa aaatgacatc accattcccc cacaccaa atgtgaattgg 780  
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100

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 <211> 562  
 <212> DNA  
 <213> Homo sapien

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 aatttcacaa ttggagaaaa ac 562

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 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> (13)..(13)  
 <223> a, c, g or t

<400> 122  
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 attttatatt ttgacaatta aaactaaata gtagcttttt ataaaagtgg catatgcact 540



101

gaagtataat gtgctaattt gggattcggt taaataaaac agctttctta gaataaaaaa 600  
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 <213> Homo sapien

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 ggtaattcaa cagttaaaag aagctt 386

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 <211> 654  
 <212> DNA  
 <213> Homo sapien

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<210> 125  
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102

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 125

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atgggcgtag tagggagcca tcagctagga agaaacgtgg gagatgtgaa ttccaagagt     180
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&lt;210&gt; 126

&lt;211&gt; 2671

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 126

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## 103

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104

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 <212> DNA  
 <213> Homo sapien

<400> 128  
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105

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 <212> DNA  
 <213> Homo sapien

<400> 129

106

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<400> 130
gcgtgggtcgc ggccgaggta ctgtgaatta cggatgctct ttgaaggaaa gaaatatcga      60
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aaatgaaagc agacaaattt ctattttctt acctgagcaa atattttatt gaaactgctt    180
atgtatgccaa aaggagccca caacttcagc tacacaactt tttgtattga aagaactcat    240
actttttgta gcttttattt cacatttaat ttaaagtgc ttttagcact aaaatgccta    300
gaagatttta ctccagacct ataaggaaat gtttagtttt tatgaaaaat gacaagtcga    360
tggttaaact tctcatgtct ttggtgcttt ggccctaata gcactggaca acaccacgac    420
cacatggaaa catatttttg gaagcaaac tttaatttta tataacgtat gctatggaga    480
gctaagacaa tttaaggact acttgttttc tatttttttt cttaataaaa tggaatccac    540
tgtgttgaag actcttgata ttcatgtgct tgtctaacca ttttttgttt tataattaga    600
ataaaatata gttgtgataa tgggtcatcg atggattttg ttggaaagc tacatcttat    660
ttgtgaaatg ttttttaaaa tcagagtaac tatcaactga ttcagctttt tgttggtttg    720
ttcttggtat aatacttg                                     738

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<210> 131  
 <211> 1875  
 <212> DNA  
 <213> Homo sapien

<400> 131  
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 tgccgctacg gcaagcgcga gttcaagatc ggcggcgagc tgcgcacatcg caagcagccc 180  
 taccggctgc agattcagct gtccggcgag cgcagccaca cgctcgagtt ccagagtcta 240  
 gaggacctga tcatgggaga agcgcgcaa cgaccagat cgggcgcgcg gcccggtgctg 300  
 caggagctcg ccacgcacct gcacccggcg gagccggagg agggcgacag caacgtggcg 360  
 cggactacgc cgctcccgg gcgccccct gcgcccagct ccgaggagga ggacggagag 420  
 gcagtggcac actgatgggc gagctgagcg cagagctgcg aaggggaact gtttgcagta 480  
 gcagccgctg ctccctttct ccctctcttc ctccctcttt tgccactgtc tgggccccat 540  
 ctgggattcc tgggcccttt ggaaaagagt tggtgaaatg cgcagccggc tgtggacggg 600  
 ggaggaggaa ggggacagag ggagcaggaa taagactgta gaactgtttt gtactgtgaa 660  
 ttacggatgc tctttgaagg aaagaaatat cgattctaata gttcttcaga agttctggca 720  
 gggataagca ggacatcgac tggaaactat gctaaatgaa agcagacaaa tttctatttt 780  
 cttacctgag caaatatttt gttgaaactg cttatgtatg tcaaaggagc ccacaacttc 840  
 agctacacaa ctttttgtat tgaaagaact catacttttt gtacttttta tttcacattt 900  
 aatttaaagt gacttttagc actaaaatgc ctagaagatt ttactccaga cctataagga 960  
 aatgtttagt ttttatgaaa aatgacaagt cgatgggttaa actttctcatg tctttggtgc 1020  
 tttggcccta atagcactgg acaacaccac gaccacatgg aaacatattt ttggaagcaa 1080  
 aactttaatt ttatataacg tatgctatgg agagctaaga caatttaagg actacttggt 1140  
 ttctattttt tttcttaata aaatggaatc cactgtgttg aagactcttg atatcatgtg 1200  
 cttgtctaac cattttttgt tttataaatt agaataaaat atagtgtgta taatggtcat 1260  
 cgaatggatt tgtttggaag gctacatctt atttgtgaaa tgttttttta atcagagtaa 1320  
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 agaattatgt tgacaaacag gataaattcc acatgcattt ttttcccag tgagttgtat 1440  
 aaactttatt tttgttgaag gttgtatggt aaatcaatgt tacattctta tatcacttct 1500  
 tgagaaggaa gttccgattt gaaattgtat catttccttc aaaatgaagg gcagtgtcta 1560

108

gttaaataaa agattgatga tatcttttaa gccaaaaaaa aaaaaaaaaa aaaaaaaaaa 1620  
 aaaaaaacga accaaaccaa taaaaacaag aagcacacag accgaacacc acacacacaa 1680  
 gccaccagag ctacataac gcgcgggcaa acatccacac ggccacacac agcaaccac 1740  
 tatgagagcc accccgcgga acaaaagacc ccacacacaa ccagagacaa gaaacctgcg 1800  
 agccacgccg tccacacca caaccacgaa tagtcacctc agtaacaaaa caaacacaga 1860  
 cggaggcgcc gacaa 1875

<210> 132  
 <211> 828  
 <212> DNA  
 <213> Homo sapien

<400> 132  
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 gtatcccttg accaacaatct tccagtcac acccccatcc ctctggtaac catcattcta 120  
 ctctagttgt atgagttcaa tttttttaga ttccatttat aagtgattta attaatatct 180  
 ttatcctctt tccagataat tcaaggacct tagcatttta actctagtca actgtaatat 240  
 tacattccat cgtattgcag tatttttagtc ttcttctatt aagccttcca aattggatat 300  
 tagcattatt gtggttggtt cacattagca ttattgtggt tgtttcagat agtcaatatt 360  
 gatgcagatt tacctgaata ttacccatga ttaccatcat tccttctttc tacttagatt 420  
 tccatcatcc ttcttcttga aatataattt ttaaaaggtc cattgaagaa gttctgttga 480  
 tggtaaatac agttttactt tctttgaaaa tatctttatt ttgccacat cagttatttt 540  
 attgttcagt attaagaaaa cctaattcct gtgttttctt cccatcattg ttgatattga 600  
 gttgtgtgcc atcaggcaaa tgtcattact ttttagatat tctaaacctg ttgtttcttt 660  
 aagtaagtac attgtctccc cettaatctg ttctccttcg taatgtttta ttatttgtct 720  
 cactattatg gattctggac aggtttcttc tgggtccttc tttcagggtg ctattctcta 780  
 ttcagggtgtg tttatctgct atttatcatc cctccagttt tttccttg 828

<210> 133  
 <211> 1023  
 <212> DNA  
 <213> Homo sapien

<400> 133  
 tggtcgcggc cgaggtacaa taggtctctt gaatttatcc ctctgtctta attgaaattt 60  
 gtatcccttg accaacaatct tccagtcac acccccatcc ctctggtaac catcattcta 120  
 ctctagttgt atgagttcaa tttttttaga ttccatttat aagtgattta attaatatct 180



109

ttatcctcctt tccagataat tcaaggacct tagcatttta actctagtca actgtaatat 240  
 tacattccat cgtattgcag tatttttagtc ttcttctatt aagccttcca aattggatat 300  
 tagcattatt gtggttggtt cacattagca ttattgtggt tgtttcagat agtcaatatt 360  
 gatgcagatt tacctgaata ttacccatgg attaccatgc attccttctt tctacttaga 420  
 tttccatcat ccttcttctt gaaatataat ttttaaaagg tccattgaag aagtgtctgt 480  
 tgatggtaaa tacagtttta ctttctgttg aaaatatctt tattttgccc acatcagtta 540  
 ttttattgtt cagtgattaa gaaaacctaa ttctgtgtt ttcttcccat cattgttgat 600  
 attgagttgt gtgccatcag gcaaagtcca ttacttttta gatattctaa actgttggtt 660  
 gctttaagta agtacattgt gctcccctta atctgtcttc ttcgtaatgt tttatttatt 720  
 tgtctcacta taatgaattc tggacagggt tcttctggtc tttctttgca gtttgctaat 780  
 tctctattca gctgtatcta atctgtctt taattcatcc atcaagtatt ttttccttag 840  
 tattttgttt taataatttt atttactatt tctagatttt tttctaatac tcctgggtctt 900  
 tgtcatagta tcttcttctt tatatacatt ttatttatgt atctgataac attaataact 960  
 taaacctttg taagttataa gtatgttttt agttttggtg ctgatttggt tcaaataaac 1020  
 ata 1023

<210> 134  
 <211> 757  
 <212> DNA  
 <213> Homo sapien

<400> 134  
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 tcaatctagg acttataatt attcatcatg attttgagta gattgtaatc atcaagaatt 120  
 tttcatagat cgtttacttc caattgaatt tagctcagaa gtgattgctt tctctttatt 180  
 tgagatagga gctctcgac tgctgccagg ctaggagtgc aagcggtcac gatcgtcggc 240  
 tcactagcaa cctctgcctc ccgggttgaa gcagatatac ccctgacctc aagcctcctg 300  
 cagtagctag ggactacagg tagttcatcg cttgtcctta gcttgaaac taggatgcac 360  
 aaacacatgg gttattatac tcgtacacgg agctggtcac acaacggaac tagactctct 420  
 ctccaaatgt gataccacac agacaacact cagaactacc ttcgagcctt acttaagatc 480  
 atcccttcac tgatctaaca aacttacaaa cattaatata accagatact gcgtctcgac 540  
 tattgcacgg caaatcaaaa tacaacagg tctccactaa agaccagggtg gtgacatgtc 600  
 ctagagatca acagaacaat ctaatcctga ccctcacgcc aactatgatg acacgatggc 660

cgctggccca cacaggaagg ccgacacggg ccgcgctcaa agaccacca tgtccggacc 720  
tagcctaataa aaaactcacg ccccgccgcc cctacct 757

<210> 135  
<211> 1513  
<212> DNA  
<213> Homo sapien

<400> 135  
gcgggagcct gggcggcgag cggggtgtga gctgcctgaa aatgcactcg gatgccgccg 60  
ctgtcaattht tcagctgaac tctcatctct caacactggc aaatattcat aagatctacc 120  
acacccttaa taagctgaac ctaacagaag acattggcca agacgatcac caaacaggaa 180  
gtctgcggtc ttgcagttct tcagactgct ttaataaagt gatgccacca aggaaaaaga 240  
gaagacctgc ctctggagat gatttatctg ccaagaaaag tagacatgat agcatgtata 300  
gaaaatatga ttcgactaga ataaagactg aagaagaagc cttttcaagt aaaagggtgt 360  
tggaatggtt ctatgaatat gcaggaactg atgatgttgt aggcctgaa ggcattggaga 420  
aattttgtga agacattggt gttgaaccag aaaacgtgag tcaaacttac tgagttgggt 480  
gaatcagttg gttgtttttc atacttaaat ctttgttctt tagcaaataa atagaataat 540  
taaaaagtag tggatatgta gtttttatga agcagtctaa gaaataagtt ctaattctag 600  
tttgacttat aagcagattc tccattcttg taagtatat ggtgtaacta cagttattht 660  
ttctctcatt taatttcttg tatgtaaaag gtacagtaag ccagatgctt acaaaatggt 720  
gtggccacat gtgcctacaa tgacggatca actggaggcc acattgtacg ctgtgtacct 780  
tcgtgcccct cagtagttgt tttagcctaa tgtagagtca atctaggact tataattatt 840  
catcatgatt ttgagtagat tgtaatcatc aagaattttt catagatcgt ttacttccaa 900  
ttgaatttag ctcagaagtg attgcttht ttttttgag ataggagctc tcgcactgtc 960  
gccaggctag gagtgcgaagc ggtcatgac gtcggctcac tagcaacctc tgcctcccgg 1020  
gttgaagcag atataccct gacctcaagc ctctgcagt agctaggagc tacaggtagt 1080  
tcctcgcttg tccttagctt ggaaactagg atgcacaaac acatgggtta ttatactcgt 1140  
acacggagct ggtcacacaa cggaactaga ctctctctcc aaatgtgata ccacacagac 1200  
aacactcaga actaccttg agccttactt aagatcatcc ctctactgat ctaacaaact 1260  
tacaacatt aatacaacca gatactcgt ctcgactatt gcacggcaaa tcaaaatata 1320  
acaggttctc cactaaagac cagggtgtga catgtcctag agatcaacag aacaatctaa 1380  
tcctgacctc cagccaact atgatgacac gatggccgct ggcccacaca ggaaggccga 1440

111

cacgggccgc gctcaaagac caccatgtc cggacctagc ctaaaaaaaaa ctcacgcccc 1500  
gccgccccta cct 1513

<210> 136  
<211> 738  
<212> DNA  
<213> Homo sapien

<400> 136  
gcgtggtcgc ggcgaggtac caaccccagc acacccaac agcctttcct cggccccctc 60  
ctcaggcctc ctaattactc tttctcagcc tggagtgtgg ggccgttacc gtcctcttcc 120  
cccttctcct tccatactgc acttaacctt gctggaagat ttaatgatgg agatttaggg 180  
caactgtggc tgcttgggac ctttccttgg gaccaaagga acttaaaacc caatacctga 240  
cactggaatg aaatccaagt ttttaaatat cacctttcaa tcaactcacag atctcacatc 300  
tatcttaaaa tactcagcct cactccttaa ctgagtgtt gcctgagagg gagaaaagtt 360  
ccattttaaa aacgtattca ctttactgat tactgtgcaa tttgaattaa gtcacgattc 420  
tttagtcatg gaggtcgaga atctcagatt caaattgtca gagaccatga tttagaagtc 480  
taccaaacac ccagtttcct tccactgttt tagggtaaca ggaaaacatg agattggggg 540  
gggtgccgct attaaatgga accacacatc atgaaattca attctcatgt taagacattc 600  
tgtattgtgg gatgtcaaaa gtatctccca aaactttcgt ttgacctgtc agagtgggga 660  
tggttactcc ctatacttca gtttgtttca caagcttggc gtaaccaggc atagtgttcc 720  
gtgtgaatgt tcgtccac 738

<210> 137  
<211> 1350  
<212> DNA  
<213> Homo sapien

<400> 137  
atgggttatgg agaagcccag tccgctgctt gtagggcggg agtttgtgag gcaatattat 60  
actttgctga ataaagctcc ggaatattta cacaggtttt atggcaggaa ttcttcctat 120  
gttcatggtg gagtagatgc tagtggaag cccaggaag ctgtttatgg ccaaaatgat 180  
atacaccaca aagtattatc tctgaacttc agtgaatgtc atactaaaat tcgtcatgtg 240  
gatgctcatg caaccttgag tgatggagta gttgtccagg tcatgggttt gctgtctaac 300  
agtggacaac cagaaagaaa gtttatgcaa acctttgttc tggctcctga aggatctgtt 360  
ccaaataaat tttatgttca caatgatatg tttcgttatg aagatgaagt gtttgggtgat 420

112

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tctgagcctg aacttgatga agaatcagaa gatgaagtag aagaggaaca agaagaaaga      480
caaccatctc ctgaacctgt gcaagaaaat gctaacagtg gttactatga agctcacccct      540
gtgactaatg gcatagagga gcctttggaa gaatcctctc atgaacctga acctgagcca      600
gaatctgaaa caaagactga agagctgaaa ccacaagtgg aggagaagaa cttagaagaa      660
ctagaggaga aatctactac tcctcctccg gcagaacctg tttctctgcc acaagaacca      720
ccaaagccaa gagtcgaagc taaaccagaa gttcaatctc agccacctcg tgtgcgtgaa      780
caacgaccta gagaacgacc tggttttcct cctagaggac caagaccagg cagaggagat      840
atggaacaga atgactctga caaccgtaga ataattcgct atccagatag tcatcaactt      900
tttgttggta acttgccaca tgatattgat gaaaatgagc taaaggaatt cttcatgagt      960
tttggaacg ttgtggaact tcgcatcaat accaaggggtg ttgggggaaa gcttccaaat    1020
tttggttttg tggtttttga tgactctgaa ccagttcaga gaatcttaat tgcaaaaccg    1080
attatgtttc gaggggaagt acgtttaaat gtggaagaga aaaaaacaag agctgcaaga    1140
gagcgagaaa ccagaggtgg tggatgatgat cgcagggata ttaggcgcaa tgatcgaggt    1200
cccgtgggtc cacgtggaat tgtgggtggt ggaatgatgc gtgatcgtga tggaagagga    1260
cctctccaa ggggtggcat ggcacagaaa cttggctctg gaagaggaac cgggcaaatg     1320
gagggccgct tcacaggaca gcgtcgctga                                     1350

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```

<210> 138
<211> 569
<212> DNA
<213> Homo sapien

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<220>
<221> misc_feature
<222> (509)..(509)
<223> a, c, g or t

```

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<400> 138
cgccccgggca ggtcgcccat gtgctgtgat gtcagtgagc gggcggagtt caggctggtc      60
agtgccaggt gtccttctc ccaccgaga acagtggcca ggttgctcct caggcacccct      120
gggcaactgc cccttccctt ccagtggggc ctgacctggc taccgagctt ggcagctaata      180
aggcggggccc ctgagcattc acgtcctga gctgctttat caaactagga ttgttcccc      240
aggtctaaga aaaccatcca ttcactgcaa agttagttat tactgcggat gggctaggag      300
ttagaggaag agagtgactc aaatcacaac acctcctgga cgaagctgga agcggattaa      360
aataccgggc ctaatttcag aacaacaaaa aaaaaagaaa aaaaaaaaaa agcgcggggc      420

```

113

ggaacccagg ggccaaaagg gtgggtcccg gggggggaaa tctggttacc gcggcccaaa 480  
 attcccaaaa aaatttgagg gggccaaang caccgcgctc tctgcccccc ccacgcccgc 540  
 cccccccccc acaacccatc gccgccccg 569

<210> 139  
 <211> 739  
 <212> DNA  
 <213> Homo sapien

<400> 139  
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 tccgggcagg tactgcctgg ttttacaaga attaatgcag tttcacagtg aagcatgtaa 120  
 gatattgaat tttagagaca atagaccaga tacctttcta atctcatttt attcattaat 180  
 gtcaaataat accattttta aaaatatggt gcttatttgt ctagcaagta acctatagaa 240  
 aagtattatt ttatacaaaa agatgattag gtcacataaa ggaattggaa tcttaagttt 300  
 aaaatacact tctgttttta gccagaaggg agaaacgatg gttggattta tgccattttt 360  
 caattaaaaa ccatgtggta ctacttgaag cagtttctga gttaaaggag gtgtttaaag 420  
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 cttgtagtgc gaaaacttgg gtttatcact cgcacaaagg aatgacacac accatggggc 600  
 actctggagc ctctcaataa aaggatgttt caaaggaaca acaacaaaaa aaaaaaaaaa 660  
 aaaacgttgg gggaaacaca gggcacaaag tgtcccgggg gaaattgttt tccgccacaa 720  
 tccaaaattc acaaaaacc 739

<210> 140  
 <211> 1131  
 <212> DNA  
 <213> Homo sapien

<400> 140  
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 ctgcactgtc taaatgaagg agaattttta aatgatgtta ttatagactt ttatttgaaa 120  
 tacttgggtgc ttgaaaaact gaagaaggaa gacgctgacc gaattcatat attcagttct 180  
 tttttctata aacgccttaa tcagagagag aggagaaatc atgaaacaac taatctgtca 240  
 atacagcaaa aacggcatgg gagagtaaaa acatggaccc ggcacgtaga tatttttgag 300  
 aaggatttta tttttgtacc ccttaatgaa gcgtgagtaa gaatttcctt taaaggaaaa 360  
 tctttaaatc atgtaaatga tgacaatttt taaataatga gtatgagggtg aagaattcat 420

114

tttaaaacat ctttctgaaa tctcttgtgt atattcatat ttgtactgcc tgttttacaa 480  
 gaattaatgc agtttcacag tgaagcatgt aagatattga atttttagaga caatagacca 540  
 gatacctttc taatctcatt ttattcatta atgtcaaata ataccatttt taaaaatatg 600  
 gtgcttattt gtctagcaag taacctatag aaaagtatta ttttatacaa aaagatgatt 660  
 aggtcacata aaggaattgg aatcttaagt ttaaaataca cttctgtttt tagccagaag 720  
 ggagaaacga tggttggatt tatgccattt ttcaattaaa aaccatgtgg tactacttga 780  
 agcagtttct gagtaaatgg aggtgtttta agatttgtat tattctctcc caatgactag 840  
 atagtagtat ttacaatgg agacttaaaa gttttttgtg ttttattctt tcgcttttct 900  
 atgccctcaa tccaaagaac accagaaata cacttgtagt cggaaaactt gggtttatca 960  
 cttgcatcaa ggaatgacac acaccatggg ccactctgga gcctctcaat aaaaggatgt 1020  
 ttcaaaggaa caacaacaaa aaaaaaaaaa aaaaaacgtt gggggaaaca cagggcacaa 1080  
 agtgtcccg gggaaattgt tttccgccac aatccaaaat tcacaaaaac c 1131

<210> 141  
 <211> 887  
 <212> DNA  
 <213> Homo sapien

<400> 141  
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 gcatttaagg cccatgagtg atggtccatt ctgcagcttt tcatgccatg cttttccttt 180  
 gtgtgggggt ccacagatca gagtctgtct gtggcatcga cttccttatg tcctcattgt 240  
 tcccacccat tgctgggatg tccacgttg acttctcaaa agtggcccaa gaatctaagt 300  
 gcaaaatctg tttggatttt tacaattttt tcctaattct ttacagtctt ggtcattcct 360  
 atttcaactg caattttttt caatgacttg cctgggtgtga atattttttt aaagcatcca 420  
 gtattaaaca aaaaaattta aacagctaaa aaaaaaaaaa aaaaaacaaa cggtgaggcg 480  
 aaaccagggc tcaataccgg ctccccgtgg tgctgaacac tggataactc cgcggttcac 540  
 caattcccaa ccacaacata cgggcgagac aaggctgcac gcaaccggc acgcgcatgt 600  
 cgcaggacac gtcacggagc caagaacggg cagcaggacc acagagaacc agacgcaggc 660  
 cgcgcacgtg gagcggaggg gtagaaccga cagccgccgc gccgtgggca gcggccatgg 720  
 cgcacacggg ccgacacgga agcggagccg cagcgacagc gagcagcacg cggggcgacg 780  
 gcgcggcgag gaggggagcg gcgcggggaa cggacgctgc agagaggcgg agggcggcga 840

gccgcggcgc ggccgagccg aaggcgaccg caagcggcgg cggcggc

887

<210> 142  
 <211> 2086  
 <212> DNA  
 <213> Homo sapien

<400> 142  
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 tatgcttcct gaccattttt taccctaaca ttgtgttct tttcccgaga aggaaaaatca 120  
 acttctatcc tatctctacc cagcagaggc cctgccccca ctttacacac aaaaccatct 180  
 aactttttga tattctaaat gggggaaacc cctattttat aaccctcggg tacttttaat 240  
 ctttagatga ggaactagag gagccactat gttcctctca gcaccatgat ttatgcctta 300  
 gctaaggcct tcaactgggg aaggggaaga aggttgtttt caagcctgtg gcctcctgtc 360  
 actccccacc cctggaaggc ccttcacttt tgggtgatgc ctagaggcct catggacagc 420  
 agtccttctt gacaccagc gagatatcat ctgggagggt cgcagccctc agttccctc 480  
 atggctctct ctttcacttc cctccatgac accacctcat cgagttgaag atgttattga 540  
 tgagtgcagt ggggtgtatag tgcctccca aaattcatgt ccaccagaa attcagaatg 600  
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 gttaggatga acctgaaatc caatcactgg tgccttgta agaggaaagg tcacaaagag 720  
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116

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 <213> Homo sapien

<400> 143  
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<210> 144  
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<400> 144



117

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&lt;210&gt; 145

&lt;211&gt; 433

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 145

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118

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<210> 146  
 <211> 1791  
 <212> DNA  
 <213> Homo sapien

<400> 146  
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119

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<210> 147
<211> 349
<212> DNA
<213> Homo sapien

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<210> 148
<211> 848
<212> DNA
<213> Homo sapien

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120

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 tgaaacaatc atccagttaa caatcagcaa gggtcttcag agcctaatta atgtttaatt 780  
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 actcgggtc 848

<210> 149  
 <211> 414  
 <212> DNA  
 <213> Homo sapien

<400> 149  
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 <212> DNA  
 <213> Homo sapien

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121

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<210> 151  
 <211> 509  
 <212> DNA  
 <213> Homo sapien

<400> 151  
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## 122

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 <212> DNA  
 <213> Homo sapien

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 <211> 577  
 <212> DNA  
 <213> Homo sapien

<400> 153  
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123

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 <213> Homo sapien

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<210> 155  
 <211> 800

124

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 155

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&lt;210&gt; 156

&lt;211&gt; 4632

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 156

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atgtatgcag cagtggaaca tgggcctgtg ctttgcagtg actccaacat cctgtgcctg      60
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125

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127

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 <213> Homo sapien

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 taccttgggc agtaacgaca attattcctc attcaagtaa tttcaatgct gaaactgaac 180  
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128

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 aatttaaagt gattgtagca gttcgtgtga ttctacagca gcaggattgt aggcagatta 240  
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 <212> DNA  
 <213> Homo sapien

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 gtaccctttt ttggttatta tacctttatc cataagtatc tttaaatatt acaaaaaatta 240  
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129

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tatctatgct ttaggtacat gttcatgaat ttgtgctgaa taattacttg agtgtgaaat      780
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ccccaatcgc acaacagggc                                     1400

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<210> 160
<211> 556
<212> DNA
<213> Homo sapien

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<400> 160
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<210> 161
<211> 1327

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130

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 161

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gaaatgtgta cctattcacc attccaacgt gaagaagctc tgcagtagga aaaataatta      720
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gatcggc                                           1327

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&lt;210&gt; 162

&lt;211&gt; 318

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 162

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ggttctccta aatgtcttaa cccatgttta tcttgttctg ctattccatg agcaaagaga      60

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131

ataaagcaca aagctgtgag agtattaaat atggacacta gatttacatt tccaacaaga 120  
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aagtggcaag atctgtttgg tgatcactgt aaaacaggaa acacagtaat gccttcatgt 240  
tgaggtgcta aaaggtcaag cttgggtaac aatgtccata gctgttctgg tgaatgtttc 300  
gtcaatcaaa tagtgaaa 318

<210> 163  
<211> 1042  
<212> DNA  
<213> Homo sapien

<400> 163  
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gctactggaa ctttgtagat gaggagcctg tatgatgatg tcctgaacat ttctatcctt 180  
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aacagttggt ctggttcctt tatagagact gattcccaca ttggatactg cctggaggcc 660  
ttggggatga atgagaagtt ctgctggttt ggatcagtag cagaagcagg taacacatca 720  
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gcctttcaaa ttggtgaaaa tg 1042

<210> 164  
<211> 1120  
<212> DNA  
<213> Homo sapien

132

&lt;400&gt; 164

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ctgaggtgac ccagcctgt ttgcagttcc aagtcttccg tgtaggcgctc actgctactg      180
gaactttgta gatgaggagc ctgtatgatg atgtcctgaa catttctatc ctttcctcac      240
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caagacatct cctgtggcag ggaaatgagg gggcaggctg tatcagtgat atttttataa      360
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&lt;210&gt; 165

&lt;211&gt; 810

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 165

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agatcatgct cgagcggcgc agtgtgatgg attggtcgcg gccgaggtag ttttttatgg      60
cttacatctg tgcttggtcg gccatcaagt ctgggtgcca ctgtttgaga tttggggctg      120
tttctgcaa ctgatctctg ctacagataa ggcttcctc ctggaggcca aagccctggt      180
taacgttaag agctctatga tgatgcaaac ttcagaggcg atcacctaac ataacaaaaa      240
cctccccaga accagaacct gttttttcac caaaacctt ccgctgcttg aataagaatg      300
tcttttctt tcctaccaac tttgatgcca ctggccactg tgacataact tttacttagc      360
ggggtaaatc atagatggat tacttgaact gccaacacaa gactgctgga cgagggacag      420

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133

agctggatat gttagacaaa gatatacgaa cgacttggcg taatcactgg tcaatagctg 480  
 acaccatgat gtgaaaagta gtaatcacgg ctcaacaagta ccaacacaag atacagaaga 540  
 caggagaaga ggaacaggaa aagaagaaac aacagagcac aaagagagaa caagcacaca 600  
 acagacgaag gccacaagag cgaaggagga cgggacgcag caccagcaac agaggaacgg 660  
 cacgcacaga agaacacaga caagaaaacg agaagaaacc acacgcacaa ctagccagaa 720  
 tcagagacag aaaacgcgaa gacaggaggc agaagcagaa acacaagaaa accgaacacc 780  
 aaaacaggca gcacaaacac gaagagaaaag 810

<210> 166  
 <211> 601  
 <212> DNA  
 <213> Homo sapien

<400> 166  
 gaagtataac tatatgggcg aatgggtcct tagatgcagg ctcgagcggc gcagtgtgat 60  
 ggatccgccc gggcaggtag tcagggtgta tatgatcttc tgagctgaat aagtgcgagg 120  
 agcagattat taagatctgc cattctgaaa cgctggtcct tttctccttc ctatagtgc 180  
 ccataaaatt ctgttgatca gattatatta catacatttg ggggagtgga gggacatgag 240  
 ttaagtagcc cttcatgtat ttataatctc ttttctactg aatcaaatga cttagccatg 300  
 accctgaatg gacctgtttt acttcaagtg agatgtctgc cttttatgaa ttgtatatgt 360  
 gaatagagtt cgggggttgc caaaaatgca tacatgtatg taagtaaaat tttttatgaa 420  
 gtagtctgtc aaatgtatca taaagtttat ttttctttta tacgtaaata attaaaaata 480  
 atcacatatt tttgaaaaaa aaaaaaaaaa aaaaaaagggt ggggggtatc tcggggccaa 540  
 aaggggtccc gggggggaat tgggtttccg gttcaaattt ccacaaattt gggagaaaat 600  
 a 601

<210> 167  
 <211> 1035  
 <212> DNA  
 <213> Homo sapien

<400> 167  
 tggctcgggc gaggtactgt aaatgtgatg gaaaacattg atgagaattt attggcagtt 60  
 cagattgtgt tttcccaact taggctcttt attaatgggt taagggtttc tccaaaaagg 120  
 gcatttcaac aatgggaatt attttaaatt ggttaaacca gtgggcacag attacttatt 180  
 ttcttctctt gctttgtgac tcaccagcag taacacacac aatccacatc ttgtgcacct 240

134

caaatgaaca gacttgggtt ccttgctttc ttgacatttc catgactgtt tcacatacaa	300
actattgggt gaggtttttc agctgttacc gaccacgtc ctgctgtctc tgtgtgggtcc	360
tacaaaaact gtccattccc acccctttgc tttgccattt gcaagagtct ggaattgtca	420
ggtctcagct tcgaaaagtc ctggttccac tgacaggaca cattctttag tgggaattaa	480
gacctacaaa gtctagtttg tatgtaggta tgaagggaat tttttaaata aagtggaaaa	540
gctgtgaaca gcattagaac tctgtctatt tcttaatttt aaaatatgct gatatgcctt	600
aaactgtagt tgtagatcct tgtcatTTtg ctgTTtgaaa ataaccaatg tgttttctaa	660
aactgtcgtg taatctactt tcattgttaa tgcagaattg tcatatatgt aagccgcatg	720
ttagacattt gtctttttta aactaaagta attgtattga tgtgaagcat atcatTTTT	780
caaatatgaa agtgatcact tagcaacatg cttggtaatt tggcatctgt taaggtagga	840
gagtggtgaa cagataatct atgcatatat cactagtgcc aagacataaa gcgggggaaa	900
atatatTTTT acccaaacat taaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaggc	960
tgggggtaac cggggccaaa ggggtcccg ggtgaattgg tttccgctc aaattcccc	1020
atTTTTgggc aaacc	1035

&lt;210&gt; 168

&lt;211&gt; 1666

&lt;212&gt; DNA

&lt;213&gt; Homo sapien

&lt;400&gt; 168

ctgggtgatg aagtgagact ctccaaaaaa aaaaagaaat tattaatccc tgctgtgtct	60
ctacatagcc tcatgggcat cattggatag ctgagagggc cttgattct ggcaaggcaa	120
ataaagccag aatgagaaat taccatcttc tactagagaa aaccaagaga aaaatTTTTa	180
tgctaggatg ctttatgac cacttaattt tttaatttta gtttaatggt ctctccctgg	240
tgctaactgc tgacagtggc cacctctttt ttggggattg aggggcctac ataactagct	300
ggccttacct catatctttt gttcaaacat aataccatct ttttgcttct tctgaacttt	360
agatctccat aacacatgta ctgtagaatg tgatggaaaa gcattgatga gaatttattg	420
gcagttcaga ttgtgttttc ccaacttagg ctctttatta attggttaag gttttctcca	480
aaaagggcat ttcaacaatg ggaattattt aatgtaacag tgggcacaga ttacttatct	540
tccttctctg ctttgtgact caccagcagt aacacacaca atccacatct tgtgcacctc	600
aatgaacag acttggtttc cttgctttct tgacatttcc atgactgttt cacatacaaa	660
ctattgggtg aggtttttca gctgttaccg acccacgtcc tgetgtctct gtgtggctct	720

135

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acaaaaactg tccattccca cccctttgct ttgccatttg caagagtctg gaattgtcag      780
gtctcagctt cgaaaagtcc tggttccact gacaggacac attctttagt gggaattaag      840
acctacaaag tctagtttgt atgtaggat gaaggaatt ttttaaataa attgaaaagc      900
tgtgaacagc attagaactt tgtctatttc ttaattttta aatatgctga tatgccttaa      960
actgtagttg tagatccttg tcattttgct gtttgaaaat aaccaatgtg ttttctaaaa    1020
ctgtcgtgta atctactttc attgttaatg cagaattgtc atatatgtaa gctgcatggt    1080
agacatttgt ctttttttaa ctaaagtaat tgtattgatg tgaagcatat cattttttca    1140
aatatgaaag tgatcactta gcaacatgct tggtaatttg gcatctgtta aggtaggaga    1200
gtggtgaaca gataatctat gcatatatca ctagtgccaa gacataaagc gggggaaaaat    1260
atatttttac ccaaacatta aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa caactgtggt    1320
cggcgcgctt gtggccccgg aagaagagtc ttctcgtaga accatcgtgg tttgggcccc    1380
gcggggcccc aggaggtagg gtgccacacg ggccaaaagc gtgtcccagg agacaccggy    1440
gggcactaga acaacttagg gtgtgtgagg aatattttcg ctaccccat gttacaaaaa    1500
caaccgcgca gagggggcaa acagcaacag ggtttctgtg aaacaacaac ccccaaattg    1560
agggaagtcc tcgagaagga catacaggga aagcctaata caacagaggg aagatcccaa    1620
ggaaaagcac tatcatataa ataattatcg ccgccggctg tgcggg                    1666

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<210> 169
<211> 633
<212> DNA
<213> Homo sapien

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<400> 169
aaaacaacac ggaatgtcta cgactaacta tagggcccct ggtgtatcta gatgcatgct      60
cgagccggcc gccatgatgt gactggatgt cgcgcccgag gtacagagta tgtagtgggc    120
atctgttgaa tgaatgcttt tcccagtagc cacgtgtatt catacaatat taatataatt    180
agtcccctgg gcttacagat aaaaatgaaa cgcacaaacg tgcccagctg cagtgaagacc    240
caggtgtttc tcctccaccc ctagtgggcc cctgggcagg tctttttttt ttggtaacac    300
tcaccaggtc tgttctgtag tcaatcatgt gatggactgt gtcggtgaac tgtgcaggac    360
actgtttcct tagtgttcat tagcgacaga gtaaacaatgt ttgccatgca agggttattt    420
ggcatctgca ttttaagtga aatgttgaat caatgaaaag gtgttgatta agcagtagtt    480
gtagatatgc taagtttttc aaattactaa tatcaagtgg agatggtttt tactttataa    540
gggtattgct ttggtgatag cataaataat gggtttccct ttttggtaac tgtaacatta    600

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136

attggctggc aactttggta ttcccataga ctg 633

<210> 170  
 <211> 563  
 <212> DNA  
 <213> Homo sapien

<400> 170  
 gggaaggaag acatataggg cggaatgggt cctagatgca tgtcgagcgg cgcagtgtga 60  
 tggatcggcg ccgggcaggt acaaaaaata ggataaatgc ttgttttttt atttagcaat 120  
 gtccaaaata atgaattgat ttcccagta tctctaaag gtaaccaggg atttttttta 180  
 ttttaattatc ttgaaccac atatttaa atacgtagta tgctacaaac cattgcagtt 240  
 aagtaccttt attgatgctt gagtgccca ctttttcttt tttttttttt ggagacagag 300  
 cctcgctctg tcaccaggc tggagtgcag gggcgctatc ttgactcac ttgcaacctt 360  
 ccttccttcc gtggggtgca ggcagattct cctgtgcctt acagcctccg agtttggctg 420  
 ggatttacag ggcattgttg caagtttccc acattttcag tgagaaattc ctcaattggc 480  
 ctccgtgagt ggtttgaaa ttgacccag aattcttgga gtgggtgtat tagctatcta 540  
 tggctggtgt acaaattga cct 563

<210> 171  
 <211> 682  
 <212> DNA  
 <213> Homo sapien

<400> 171  
 gaaaagggtg gcagcagggt cacgtgttat cagcctgac atctatcacc tgatgggttt 60  
 agcaatacct aaatccgtga tatcatcaga ggttgcaaaa tgatgagatt cagggttttt 120  
 ttttacataa ttattggtca gaattattct gcaaatagct tctctttaac agtattcggt 180  
 taccttgaaa tacaggttgt acaaaaaata ggataaatgc ttgttttttt atttagcaat 240  
 gtccaaaata atgaattgat ttcccagtat cctctaaagg taaccaggga ttttttttat 300  
 ttaattatct tgaaccaca tatttaaata tacgtagtat gctacaaacc attgcagtta 360  
 atacctttat tgatgcttga gttgccact tttttctttt tttttttttg gagacagagc 420  
 ctcgctctgt caccaggct ggagtgcagg ggcgtcatct ttgactcact tgcaaccttc 480  
 cttccttccg tgggggtgcag gcagattctc ctgtgcctta cagcctccga gtttggctgg 540  
 gatttacagg gcattgttgc aagtttccca cattttcagt gagaaattcc tcaattggcc 600  
 tccgtgagtg gtttggaat tgacccaga attcttgag tgggtgtatt agctatctat 660  
 ggctggtgta acaaattgac ct 682

137

<210> 172  
 <211> 75  
 <212> PRT  
 <213> Homo sapien

<400> 172

Met Gly Pro Arg Ser Arg Leu Trp Pro Ser Ser Pro Leu Trp Leu Val  
 1 5 10 15

Gln Pro Leu Cys Thr Pro Gly Val Phe Thr Pro Gly Ala Asp Ser Ser  
 20 25 30

His Cys Ser Ser Phe Leu Arg Glu Ile Thr Val Val Ile Ala Ala Gly  
 35 40 45

Ala Asn Arg Leu Gly Leu Val Ser Cys Ala Phe Gly Gln Leu Leu Thr  
 50 55 60

Arg Ser Ser Leu Lys Gln Trp Gly Gly Pro His  
 65 70 75

<210> 173  
 <211> 38  
 <212> PRT  
 <213> Homo sapien

<400> 173

Met Phe Pro Arg Leu Asp Ser Thr Ser Trp Pro Gln Gly Ile Leu Trp  
 1 5 10 15

Ala Trp Thr Pro Lys Pro Leu Arg Leu Glu Val Cys Glu Pro Pro Ser  
 20 25 30

Leu Pro Ser Leu Trp Ser  
 35

<210> 174  
 <211> 52  
 <212> PRT  
 <213> Homo sapien

<400> 174

Met Thr Leu Phe Ile Arg Cys Cys Thr Asn Tyr Gly Asn Leu Cys Gln  
 1 5 10 15

138

Tyr Phe Asn Val Cys Trp Ile Ile Thr Asp Ile Phe Ile Ile Leu Met  
                   20                  25                  30

Ser Thr Asn Leu Phe Ile Leu Ile Ala Arg Val Ser Leu Gly Ser Lys  
                   35                  40                  45

His His Leu Gly  
           50

<210> 175  
 <211> 37  
 <212> PRT  
 <213> Homo sapien

<400> 175

Met Ala Gly Ser Gly Lys Val Pro Ile Thr Thr Thr Tyr Lys Pro Pro  
   1                  5                  10                  15

Thr Asn Ser Asn Ala Ile His Leu Pro Thr Pro Ile Ile Arg Lys Ala  
                   20                  25                  30

Gly Phe Thr Gly Ile  
           35

<210> 176  
 <211> 88  
 <212> PRT  
 <213> Homo sapien

<400> 176

Met Gly Leu Thr Leu Lys Ser Leu Cys Asp Ser Lys Met Asn Cys Gln  
   1                  5                  10                  15

Ser Asn Val Pro Leu Met Lys Asp Pro Ile Thr Leu Gln His Val Cys  
                   20                  25                  30

Ile Gln Arg Thr Tyr Leu Arg Leu Ser Phe Gly His Gly Gly Arg Leu  
                   35                  40                  45

Leu Leu Lys Thr Tyr Gln Ser Pro Leu Trp Arg Ser Ala Asp Arg Pro  
   50                  55                  60

His Asp Leu Gly Asn Gly Leu Leu Val Ile Trp Asp Cys Leu Gly Leu  
   65                  70                  75                  80

Cys Asn Gly Thr Trp Gly Gln Asn

139

85

<210> 177  
 <211> 61  
 <212> PRT  
 <213> Homo sapien

<400> 177

Met Asp His Lys Ser Ala Asn His Ser Ser Ala Leu Leu Lys Met Leu  
 1 5 10 15

Leu Ala Gly Gly Met Ser Leu Pro Glu Val Pro Glu Gly Leu Thr Pro  
 20 25 30

Thr Pro Ser Ser Gln Thr His Leu Ser Lys Gly Lys Gly Arg Asn Leu  
 35 40 45

Glu Lys Ser Tyr Phe His Asn His Ser Leu Arg Glu Pro  
 50 55 60

<210> 178  
 <211> 198  
 <212> PRT  
 <213> Homo sapien

<400> 178

Met Thr Pro Ile His Leu Ile Cys Ser Pro Ser His Glu Leu Gln Asp  
 1 5 10 15

Thr Thr His Pro Gln Pro Gln Arg Glu Cys Gln Arg Phe Ser Thr His  
 20 25 30

Gly Ala Gln Thr Thr Gln Cys Ala Thr His His His Pro Tyr Ile Ser  
 35 40 45

Gly Ala Ala Thr Arg Thr Tyr Leu Arg His Val Ala Pro Asp Tyr Ser  
 50 55 60

Ala Pro Leu Met Ala Pro Pro Thr Asn Thr Arg Leu Ala Pro Ala Ser  
 65 70 75 80

Leu Gln Pro Thr His Leu Arg Pro Pro Leu Ala Arg His Pro Leu Thr  
 85 90 95

Ala Asp Cys Arg Thr His Gln Leu Thr Asp Thr Arg Pro Leu His Pro  
 100 105 110

140

Arg Pro Ile Thr Ser Arg Thr Pro Gln Pro Leu Pro Ser His Thr His  
 115 120 125

Gly Leu His His Thr Arg Pro Pro His Thr Ala Thr Gly Cys Pro Tyr  
 130 135 140

Leu Ser Thr Ser Arg Pro Leu Pro Pro Leu His Thr Arg Ser Ile His  
 145 150 155 160

Pro Asp Asn Pro His Cys Thr Thr Pro His His Ser Pro Ser Lys Pro  
 165 170 175

Ser Thr Thr Thr His Gln Gln Ser Pro Ala Pro Thr Pro Asn Lys Pro  
 180 185 190

His Pro Arg Arg Ala Ser  
 195

<210> 179  
 <211> 20  
 <212> PRT  
 <213> Homo sapien

<400> 179

Met Ile Gly Ile Thr Trp Cys Phe Glu Leu Ile His Pro Thr Leu Glu  
 1 5 10 15

Leu Thr Ala Thr  
 20

<210> 180  
 <211> 107  
 <212> PRT  
 <213> Homo sapien

<400> 180

Met Gly Ala Ser Gly Pro Glu Arg Glu Asp Arg Asn Ser Glu Asn Gly  
 1 5 10 15

Val Glu Lys Lys Asn Val Lys Glu Leu His Glu Glu His Met Ala Glu  
 20 25 30

Lys Lys Glu Leu Gln Glu Glu Asn Gln Arg Leu Gln Gly Leu Pro Val  
 35 40 45



141

Ser Gly Ser Glu Glu Gly Arg Leu Pro Val Pro Ser Ala Arg Ser Ser  
 50 55 60

Thr Leu Arg Ala Ser Cys Arg Asn Glu Leu Gly Ser Leu Leu Pro Gly  
 65 70 75 80

Gly Glu Thr Ser Leu Gly Leu Lys Glu Gly His Arg Thr Lys Gly Ala  
 85 90 95

Arg Gly Gly His Arg Glu Asp Pro Gln Glu Lys  
 100 105

<210> 181  
 <211> 27  
 <212> PRT  
 <213> Homo sapien

<400> 181

Met Ser Thr His Ser Val His Ser Thr Gly Leu Pro Phe Tyr Lys Leu  
 1 5 10 15

Ser Leu Thr Ser Leu Ser Ser Met Thr Leu Val  
 20 25

<210> 182  
 <211> 40  
 <212> PRT  
 <213> Homo sapien

<400> 182

Cys Phe Glu Lys Met Leu Asn Arg Leu Gly Ala Val Ala His Val Cys  
 1 5 10 15

Asn Pro Ser Thr Leu Gly Gly Arg Gly Gly Trp Ile Met Arg Ser Gly  
 20 25 30

Val Arg Asp Gln Pro Gly Gln His  
 35 40

<210> 183  
 <211> 26  
 <212> PRT  
 <213> Homo sapien

<400> 183

Met Arg Lys Gln Ala Phe Asp Leu Leu Glu Ser Thr Ala Gln Lys Ser

142

1                      5                      10                      15

Leu Val Pro Ile Phe Glu Phe Pro Lys Gln  
20                      25

<210> 184  
<211> 39  
<212> PRT  
<213> Homo sapien  
  
<400> 184

Met Lys Glu Glu Gly Arg Leu Leu Thr Val Ala Glu Gly Arg Gln Gly  
1                      5                      10                      15

Pro Ser Cys Ser Ser His Ile Asn Ser Lys Lys Pro Ser Gln Gln Asn  
20                      25                      30

Lys Ser Ile Phe Asn Ser Ser  
35

<210> 185  
<211> 76  
<212> PRT  
<213> Homo sapien  
  
<400> 185

Met Val Glu Pro Ala Leu Ser Gly Cys Gln Gln Arg Lys Gly Gly Tyr  
1                      5                      10                      15

Ser Ser Glu Arg Gln Ser Gln Pro Thr Gln Gly Gly Gln Gly Val Arg  
20                      25                      30

Pro Gln Thr Tyr Ser Pro Ala Asp Leu Thr Val Arg Pro Ser Cys Ser  
35                      40                      45

Gly Thr Gly Asn Ala Gln Ala Glu Ile Ala Leu Leu His Thr Tyr Asn  
50                      55                      60

Thr Thr Leu Glu Asn Asn Leu Glu Trp Phe Thr Leu  
65                      70                      75

<210> 186  
<211> 35  
<212> PRT  
<213> Homo sapien  
  
<400> 186

143

Met Arg Gln Pro Cys Leu Ala Ile Pro Glu Ala Ser Ala Ser Leu Ile  
 1 5 10 15

Cys Arg Cys His Arg His Phe Thr Tyr Ser His Leu Met Ala Arg Phe  
 20 25 30

Leu Leu Leu  
 35

<210> 187  
 <211> 76  
 <212> PRT  
 <213> Homo sapien

<400> 187

Met Phe Phe Ala Leu Met Gly Ile Cys Pro Gly Thr Leu Pro Pro Gly  
 1 5 10 15

Pro Pro Leu Pro Arg Trp Pro Pro Pro Val Phe Cys Phe Phe Phe Phe  
 20 25 30

Phe Phe Gly Phe Phe Phe Cys Cys Phe Thr Val Lys Leu Phe Ile Glu  
 35 40 45

Gln Ile Glu Asp Asn Asp Ile Cys Phe Tyr Tyr Arg Ser Leu Pro Ser  
 50 55 60

Ser Tyr Ile Ile Asp Thr Tyr Tyr Glu Thr Cys Ile  
 65 70 75

<210> 188  
 <211> 173  
 <212> PRT  
 <213> Homo sapien

<400> 188

Met Ile Gly Cys Ser Leu Leu Val Ala Cys Leu Cys Cys Leu Val Gln  
 1 5 10 15

Ser Phe Arg Ala Met Phe Ser Cys Phe Ser Gly Leu Ser Leu Cys Leu  
 20 25 30

Met Leu Pro Leu Trp Cys Val Cys Pro Thr Val Cys Ala Phe Phe Cys  
 35 40 45

144

Gly Tyr Leu Leu Phe Phe Ser Leu Arg His Ala Ala Cys Gly Cys Leu  
 50 55 60

Leu Val Cys Leu Ser Cys Leu Ala Leu Pro Ser Gly Pro Ile Leu Ser  
 65 70 75 80

Phe Ser Phe Cys Leu Arg Val Val Ser Ser Val Arg Val Ala Cys Ala  
 85 90 95

Arg Ser Ala Ala Val Leu Leu Leu Arg Gly Val Pro Pro Pro Ser Leu  
 100 105 110

Arg Thr Leu Ser Leu Ile Ala Ser Thr Ala Thr Arg Leu Ser Phe Val  
 115 120 125

Phe Leu Phe Ser Leu Pro Arg Gly Leu Leu Cys Val Gly Gly Ser Gly  
 130 135 140

Ser Val Leu Gly Ser Leu Val Arg Arg Ala Gln Ser Val Gly Leu Arg  
 145 150 155 160

Asp Phe Val Ser Val Leu Gln Val Val Leu Thr Cys Leu  
 165 170

<210> 189  
 <211> 29  
 <212> PRT  
 <213> Homo sapien

<400> 189

Met Val Leu Tyr Ser Glu Gly His Gln His Gly Pro His Leu Leu Asn  
 1 5 10 15

Met Glu Asn Gln Asn Leu Asn Glu Leu Pro Leu Lys Gly  
 20 25

<210> 190  
 <211> 122  
 <212> PRT  
 <213> Homo sapien

<400> 190

Phe Phe Ala Asp Glu Val Ser Arg Leu Ser Pro Gly Leu Glu Cys Ser  
 1 5 10 15

Gly Val Ile Ser Ala His Cys Asn Phe His Leu Leu Gly Ser Ser Ser

145

20

25

30

Ser Pro Ala Ser Ala Ser Gln Val Ala Glu Ile Thr Gly Ala Cys His  
 35 40 45

Pro Thr Trp Leu Ile Phe Val Ile Leu Val Glu Thr Gly Phe His His  
 50 55 60

Val Gly Gln Ala Asp Ala Leu Leu Thr Ser Gly Asp Pro Pro Phe Ser  
 65 70 75 80

Ala Pro Lys Val Leu Gly Ile Thr Gly Val Ser His Arg Ala Arg Pro  
 85 90 95

Ala Asn Thr Phe Ala Leu Thr Thr Leu Gly Leu Leu Tyr Lys Ile Val  
 100 105 110

Met Ile Ala Met Glu Val Leu Pro Val Pro  
 115 120

<210> 191  
 <211> 11  
 <212> PRT  
 <213> Homo sapien

<400> 191

Met Trp Arg Ala Lys Gln Tyr Asp Leu Gln Thr  
 1 5 10

<210> 192  
 <211> 28  
 <212> PRT  
 <213> Homo sapien

<400> 192

Met Met Phe Ser Leu Ser Gln Lys Gly Ser Ala Ala Val Gln Ser Pro  
 1 5 10 15

Ser Thr Leu Ser Thr Pro Thr Phe Ser Ile Ser Tyr  
 20 25

<210> 193  
 <211> 48  
 <212> PRT  
 <213> Homo sapien

<400> 193

146

Met Asp Ser Gly Ala Arg Ala Gly Lys Pro Leu Leu Asp Pro Val Cys  
 1 5 10 15

Leu Pro Ala Trp Ser Leu Cys Leu Gln Pro Cys Leu Tyr Ser Ser Leu  
 20 25 30

Pro Pro His Gln Pro Pro Leu Ala Ser Pro Tyr Arg Leu Ser Lys Lys  
 35 40 45

<210> 194  
 <211> 1138  
 <212> PRT  
 <213> Homo sapien

<400> 194

Met Gly Asp Phe Ala Ala Pro Ala Ala Ala Ala Asn Gly Ser Ser Ile  
 1 5 10 15

Cys Ile Asn Ser Ser Leu Asn Ser Ser Leu Gly Gly Ala Gly Ile Gly  
 20 25 30

Val Asn Asn Thr Pro Asn Ser Thr Pro Ala Ala Pro Ser Ser Asn His  
 35 40 45

Pro Ala Ala Gly Gly Cys Gly Gly Ser Gly Gly Pro Gly Gly Gly Ser  
 50 55 60

Ala Ala Val Pro Lys His Ser Thr Val Val Glu Arg Leu Arg Gln Arg  
 65 70 75 80

Ile Glu Gly Cys Arg Arg His His Val Asn Cys Glu Asn Arg Tyr Gln  
 85 90 95

Gln Ala Gln Val Glu Gln Leu Glu Leu Glu Arg Arg Asp Thr Val Ser  
 100 105 110

Leu Tyr Gln Arg Thr Leu Glu Gln Arg Ala Lys Lys Ser Gly Ala Gly  
 115 120 125

Thr Gly Lys Gln Gln His Pro Ser Lys Pro Gln Gln Asp Ala Glu Ala  
 130 135 140

Ala Ser Ala Glu Gln Arg Asn His Thr Leu Ile Met Leu Gln Glu Thr  
 145 150 155 160

147

Val Lys Arg Lys Leu Glu Gly Ala Arg Ser Pro Leu Asn Gly Asp Gln  
 165 170 175

Gln Asn Gly Ala Cys Asp Gly Asn Phe Ser Pro Thr Ser Lys Arg Ile  
 180 185 190

Arg Lys Asp Ile Ser Ala Gly Met Glu Ala Ile Asn Asn Leu Pro Ser  
 195 200 205

Asn Met Pro Leu Pro Ser Ala Ser Pro Leu His Gln Leu Asp Leu Lys  
 210 215 220

Pro Ser Leu Pro Leu Gln Asn Ser Gly Thr His Thr Pro Gly Leu Leu  
 225 230 235 240

Glu Asp Leu Ser Lys Asn Gly Arg Leu Pro Glu Ile Lys Leu Pro Val  
 245 250 255

Asn Gly Cys Ser Asp Leu Glu Asp Ser Phe Thr Ile Leu Gln Ser Lys  
 260 265 270

Asp Leu Lys Gln Glu Pro Leu Asp Asp Pro Thr Cys Ile Asp Thr Ser  
 275 280 285

Glu Thr Ser Leu Ser Asn Gln Asn Lys Leu Phe Ser Asp Ile Asn Leu  
 290 295 300

Asn Asp Gln Glu Trp Gln Glu Leu Ile Asp Glu Leu Ala Asn Thr Val  
 305 310 315 320

Pro Glu Asp Asp Ile Gln Asp Leu Phe Asn Glu Asp Phe Glu Glu Lys  
 325 330 335

Lys Glu Pro Glu Phe Ser Gln Pro Ala Thr Glu Thr Pro Leu Ser Gln  
 340 345 350

Glu Ser Ala Ser Val Lys Ser Asp Pro Ser His Ser Pro Phe Ala His  
 355 360 365

Val Ser Met Gly Ser Pro Gln Ala Arg Pro Ser Ser Ser Gly Pro Pro  
 370 375 380

Phe Ser Thr Val Ser Thr Ala Thr Ser Leu Pro Ser Val Ala Ser Thr  
 385 390 395 400

148

Pro Ala Ala Pro Asn Pro Ala Ser Ser Pro Ala Asn Cys Ala Val Gln  
 405 410 415

Ser Pro Gln Thr Pro Asn Gln Ala His Thr Pro Gly Gln Ala Pro Pro  
 420 425 430

Arg Pro Gly Asn Gly Tyr Leu Leu Asn Pro Ala Ala Val Thr Val Ala  
 435 440 445

Gly Ser Ala Ser Gly Pro Val Ala Val Pro Ser Ser Asp Met Ser Pro  
 450 455 460

Ala Glu Gln Leu Lys Gln Met Ala Ala Gln Gln Gln Gln Arg Ala Lys  
 465 470 475 480

Leu Met Gln Gln Lys Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln  
 485 490 495

Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln His Ser  
 500 505 510

Asn Gln Thr Ser Asn Trp Ser Pro Leu Gly Pro Pro Ser Ser Pro Tyr  
 515 520 525

Gly Ala Ala Phe Thr Ala Glu Lys Pro Asn Ser Pro Met Met Tyr Pro  
 530 535 540

Gln Ala Phe Asn Asn Gln Asn Pro Ile Val Pro Pro Met Ala Asn Asn  
 545 550 555 560

Leu Gln Lys Thr Thr Met Asn Asn Tyr Leu Pro Gln Asn His Met Asn  
 565 570 575

Met Ile Asn Gln Gln Pro Asn Asn Leu Gly Thr Asn Ser Leu Asn Lys  
 580 585 590

Gln His Asn Ile Leu Thr Tyr Gly Asn Thr Lys Pro Leu Thr His Phe  
 595 600 605

Asn Ala Asp Leu Ser Gln Arg Met Thr Pro Pro Val Ala Asn Pro Asn  
 610 615 620

Lys Asn Pro Leu Met Pro Tyr Ile Gln Gln Gln Gln Gln Gln Gln



149

625		630		635		640
Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro Pro Gln Leu						
		645		650		655
Gln Ala Pro Arg Ala His Leu Ser Glu Asp Gln Lys Arg Leu Leu Leu						
		660		665		670
Met Lys Gln Lys Gly Val Met Asn Gln Pro Met Ala Tyr Ala Ala Leu						
		675		680		685
Pro Ser His Gly Gln Glu Gln His Pro Val Gly Leu Pro Arg Thr Thr						
		690		695		700
Gly Pro Met Gln Ser Ser Val Pro Pro Gly Ser Gly Gly Met Val Ser						
		705		710		715
						720
Gly Ala Ser Pro Ala Gly Pro Gly Phe Leu Gly Ser Gln Pro Gln Ala						
		725		730		735
Ala Ile Met Lys Gln Met Leu Ile Asp Gln Arg Ala Gln Leu Ile Glu						
		740		745		750
Gln Gln Lys Gln Gln Phe Leu Arg Glu Gln Arg Gln Gln Gln Gln						
		755		760		765
Gln Gln Gln Gln Ile Leu Ala Glu Gln Gln Leu Gln Gln Ser His Leu						
		770		775		780
Pro Arg Gln His Leu Gln Pro Gln Arg Asn Pro Tyr Pro Val Gln Gln						
		785		790		795
						800
Val Asn Gln Phe Gln Gly Ser Pro Gln Asp Ile Ala Ala Val Arg Ser						
		805		810		815
Gln Ala Ala Leu Gln Ser Met Arg Thr Ser Arg Leu Met Ala Gln Asn						
		820		825		830
Ala Gly Met Met Gly Ile Gly Pro Ser Gln Asn Pro Gly Thr Met Ala						
		835		840		845
Thr Ala Ala Ala Gln Ser Glu Met Gly Leu Ala Pro Tyr Ser Thr Thr						
		850		855		860

150

Pro Thr Ser Gln Pro Gly Met Tyr Asn Met Ser Thr Gly Met Thr Gln  
 865 870 875 880

Met Leu Gln His Pro Asn Gln Ser Gly Met Ser Ile Thr His Asn Gln  
 885 890 895

Ala Gln Gly Pro Arg Gln Pro Ala Ser Gly Gln Gly Val Gly Met Val  
 900 905 910

Ser Gly Phe Gly Gln Ser Met Leu Val Asn Ser Ala Ile Thr Gln Gln  
 915 920 925

His Pro Gln Met Lys Gly Pro Val Gly Gln Ala Leu Pro Arg Pro Gln  
 930 935 940

Ala Pro Pro Arg Leu Gln Ser Leu Met Gly Thr Val Gln Gln Gly Ala  
 945 950 955 960

Gln Ser Trp Gln Gln Arg Ser Leu Gln Gly Met Pro Gly Arg Thr Ser  
 965 970 975

Gly Glu Leu Gly Pro Phe Asn Asn Gly Ala Ser Tyr Pro Leu Gln Ala  
 980 985 990

Gly Gln Pro Arg Leu Thr Lys Gln His Phe Pro Gln Gly Leu Ser Gln  
 995 1000 1005

Ser Val Val Asp Ala Asn Thr Gly Thr Val Arg Thr Leu Asn Pro  
 1010 1015 1020

Ala Ala Met Gly Arg Gln Met Met Pro Ser Leu Pro Gly Gln Gln  
 1025 1030 1035

Gly Thr Ser Gln Ala Arg Pro Met Val Met Ser Gly Leu Ser Gln  
 1040 1045 1050

Gly Val Pro Gly Met Pro Ala Phe Ser Gln Pro Pro Ala Gln Gln  
 1055 1060 1065

Gln Ile Pro Ser Gly Ser Phe Ala Pro Ser Ser Gln Ser Gln Ala  
 1070 1075 1080

Tyr Glu Arg Asn Ala Pro Gln Asp Val Ser Tyr Asn Tyr Ser Gly  
 1085 1090 1095

151

Asp Gly Ala Gly Gly Ser Phe Pro Gly Leu Pro Asp Gly Ala Asp  
 1100 1105 1110

Leu Val Asp Ser Ile Ile Lys Gly Gly Pro Gly Asp Glu Trp Met  
 1115 1120 1125

Gln Glu Leu Asp Glu Leu Phe Gly Asn Pro  
 1130 1135

<210> 195  
 <211> 30  
 <212> PRT  
 <213> Homo sapien

<400> 195

Met Gln Leu Pro Leu Ser His Lys Arg Lys Lys Gln Tyr Ser Phe Tyr  
 1 5 10 15

Val Phe Asp Thr Asn Ile Lys His Asn Ser Val Leu Val His  
 20 25 30

<210> 196  
 <211> 46  
 <212> PRT  
 <213> Homo sapien

<400> 196

Met Lys Ile Tyr Phe Lys Ile Leu Leu Met Phe Leu Lys Lys Tyr Phe  
 1 5 10 15

Leu Arg Phe His Leu Met Lys Thr Met Lys Tyr Ser Val Phe Tyr Ser  
 20 25 30

Thr Thr Arg Gln Met Trp Ser Ile Pro Phe Val Phe Phe Phe  
 35 40 45

<210> 197  
 <211> 18  
 <212> PRT  
 <213> Homo sapien

<400> 197

Met Leu Glu Ala Gly Ile Ser Phe Lys Val Arg Leu Gln Lys Trp Lys  
 1 5 10 15

Gln Ile

152

<210> 198  
 <211> 132  
 <212> PRT  
 <213> Homo sapien

<400> 198

Met Phe Tyr Ser Ile Leu Ala Met Leu Arg Asp Arg Gly Ala Leu Gln  
 1 5 10 15

Asp Leu Met Asn Met Leu Glu Leu Asp Ser Ser Gly His Leu Asp Gly  
 20 25 30

Pro Gly Gly Ala Ile Leu Lys Lys Leu Gln Gln Asp Ser Asn His Ala  
 35 40 45

Trp Phe Asn Pro Lys Asp Pro Ile Leu Tyr Leu Leu Glu Ala Ile Met  
 50 55 60

Val Leu Ser Asp Phe Gln His Asp Leu Leu Ala Cys Ser Met Glu Lys  
 65 70 75 80

Arg Ile Leu Leu Gln Gln Glu Leu Val Arg Ser Ile Leu Glu Pro  
 85 90 95

Asn Phe Arg Tyr Pro Trp Ser Ile Pro Phe Thr Leu Lys Pro Glu Leu  
 100 105 110

Leu Ala Pro Leu Gln Ser Glu Gly Leu Ala Ser Pro Met Ala Ala Gly  
 115 120 125

Gly Val Trp Pro  
 130

<210> 199  
 <211> 226  
 <212> PRT  
 <213> Homo sapien

<400> 199

Pro Pro Lys His Leu Lys Ser Lys Phe Gly Gly Met Arg Lys Ala Asp  
 1 5 10 15

Asp Asp Leu Ile Leu Leu Leu Gly Arg Ile Glu Glu Pro Phe Trp Gln  
 20 25 30

153

Asn Phe Lys His Leu Gln Glu Glu Val Phe Gln Lys Ile Lys Thr Leu  
 35 40 45

Ala Gln Leu Ser Lys Asp Val Gln Asp Val Met Phe Tyr Ser Ile Leu  
 50 55 60

Ala Met Leu Arg Asp Arg Gly Ala Leu Gln Asp Leu Met Asn Met Leu  
 65 70 75 80

Glu Leu Asp Ser Ser Gly His Leu Asp Gly Pro Gly Gly Ala Ile Leu  
 85 90 95

Lys Lys Leu Gln Gln Asp Ser Asn His Ala Trp Phe Asn Pro Lys Asp  
 100 105 110

Pro Ile Leu Tyr Leu Leu Glu Ala Ile Met Val Leu Ser Asp Phe Gln  
 115 120 125

His Asp Leu Leu Ala Cys Ser Met Glu Lys Arg Ile Leu Leu Gln Gln  
 130 135 140

Gln Glu Leu Val Arg Ser Ile Leu Glu Pro Asn Phe Arg Tyr Pro Trp  
 145 150 155 160

Ser Ile Pro Phe Thr Leu Lys Pro Glu Leu Leu Ala Pro Leu Gln Ser  
 165 170 175

Glu Gly Leu Ala Ile Thr Tyr Gly Leu Leu Glu Glu Cys Gly Leu Arg  
 180 185 190

Thr Glu Leu Asp Asn Pro Arg Ser Thr Trp Asp Val Glu Ala Lys Met  
 195 200 205

Pro Leu Ser Ala Leu Tyr Gly Thr Leu Ser Leu Leu Gln Gln Leu Ala  
 210 215 220

Glu Ala  
 225

<210> 200  
 <211> 37  
 <212> PRT  
 <213> Homo sapien

154

&lt;400&gt; 200

Met Ala Lys His Lys Gly Gly Tyr Gly Lys Tyr Trp Val Thr Leu Ile  
 1 5 10 15

Ile Gly Leu Asn Ala Thr Asn Asn Ile Ile Ile Val Leu Thr Tyr Phe  
 20 25 30

Phe Arg Leu Leu Ser  
 35

&lt;210&gt; 201

&lt;211&gt; 28

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 201

Met Val His Lys Ser Tyr Phe Thr Thr Leu Ser Leu Val Ile Leu Gly  
 1 5 10 15

Val Trp Pro Cys Lys Ala Ser Ser Gln Arg Phe Cys  
 20 25

&lt;210&gt; 202

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 202

Met Gly Ser Val Cys Val Cys Phe His Arg Ser Thr Thr Ser Glu Val  
 1 5 10 15

Ser Leu His Leu Cys Ile Phe Thr Ser Gln Gly Gln Gly Pro Gly Asn  
 20 25 30

Leu Arg Gly Ser His Ser Phe Ser Leu Pro Gln Thr Met Pro Leu Pro  
 35 40 45

Pro Ile Ser Leu Gly Gln Glu Ser Gly Phe Cys Phe Pro Tyr Phe Phe  
 50 55 60

Phe Pro Arg His Trp Glu Ala Ser Gly Glu Gln His Gln  
 65 70 75

&lt;210&gt; 203

&lt;211&gt; 70

&lt;212&gt; PRT

155

&lt;213&gt; Homo sapien

&lt;400&gt; 203

Met Gly Pro Pro Leu Pro Leu Gly Gly Trp Ser Ser Asp Leu Leu Ala  
 1 5 10 15

Gln Lys Val Leu Phe Phe His Leu Leu Cys Leu Asn Glu Ser Ser Trp  
 20 25 30

Thr Tyr Thr Pro Leu Ser Asp Glu Arg Ala Arg Leu Arg Arg Cys Ala  
 35 40 45

Gly His Leu Leu Arg Ile His Val Gly Ser Ala Ala Pro Gly Gly Gly  
 50 55 60

Ser Thr Ser Ala Ala Thr  
 65 70

&lt;210&gt; 204

&lt;211&gt; 37

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 204

Met Ser Lys Lys Lys Asp Gln Asp Leu Cys Leu Lys Ile Glu Met His  
 1 5 10 15

Thr Ala Ala Ala Gln Lys Leu Arg Pro Ala Ser Lys Leu His Glu Ala  
 20 25 30

Leu Val Lys Thr Asp  
 35

&lt;210&gt; 205

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 205

Met Pro Ser Val Ala Gln Gly Pro Val Pro Trp His Leu Gly Ser Arg  
 1 5 10 15

Ser Ala Val Ala Val Phe Glu Phe Leu Val Met Phe Glu Gln Arg Pro  
 20 25 30

Tyr Val Cys Ile Leu His Trp Ala Pro Gln Ile Thr Trp Pro Ile Leu

156

35

40

45

Arg Arg Gly Val Ser His Leu Gln Ser Pro Lys Ser Pro Leu Glu Val  
 50 55 60

Phe Leu Asn Glu Arg Thr Glu Ala Phe Leu Lys Ser Ser Val Gly Glu  
 65 70 75 80

Thr Val His His His Thr Gln  
 85

<210> 206  
 <211> 46  
 <212> PRT  
 <213> Homo sapien

<400> 206

Met Ser Pro Gly Thr Ala Met Ala Leu Gly Ala Pro Thr Leu Phe Phe  
 1 5 10 15

Phe Phe Phe Phe Phe Phe Tyr Asn Gln Pro Ile Arg Asp Leu Ser  
 20 25 30

Ile Asn Lys Pro Leu Phe Ile Ile Arg Asn Trp Leu Thr Gln  
 35 40 45

<210> 207  
 <211> 91  
 <212> PRT  
 <213> Homo sapien

<400> 207

Met Ser Ser Pro Gln Ser Ile Glu His Asn His Asp Ser His Glu Leu  
 1 5 10 15

Pro Thr Pro Pro Ala Ala Ser Ala Gln Arg Glu Ser Pro Leu Gln Val  
 20 25 30

Cys Leu Ile Ala Glu Pro Ile Phe Phe Leu Pro Gly Gln Gln Leu Leu  
 35 40 45

Ser Ser Met Ser Arg His Trp Cys Ser Leu Gly Trp Ala Pro Val Thr  
 50 55 60

Pro Met Glu Ile Leu Asp Gly Cys Tyr Arg Thr Gly Leu Asp Val Arg  
 65 70 75 80



157

Gly Leu Gly Asn Gly Ala Gln Glu Ser Ser Ser  
85 90

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<210> 208
<211> 87
<212> PRT
<213> Homo sapien
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<400> 208

Met Cys Val Arg Asn Ser Met Phe Lys Lys Glu Ile Ile Gln Arg Val  
1 5 10 15

Thr Asn His Gly Ser Val Gly His Trp Thr Lys Leu Gly Phe Trp Thr  
20 25 30

Phe Leu Pro Asn Ile Asn Phe Ala Leu Ala Ser Val Tyr Thr His Thr  
35 40 45

His Thr Thr Thr Asn Thr Thr Gln Thr Thr Phe Trp Ala Asn Thr Thr  
50 55 60

Arg Arg Gln Arg Arg Leu Pro Gly Leu Lys Leu Gly Ser Leu Pro Ala  
65 70 75 80

Pro Gln Phe Ser Gln Gln Leu  
85

<210>	209
<211>	55
<212>	PRT
<213>	Homo sapien

<400> 209

Met Thr Cys Phe Arg Glu Cys Leu Leu Val Tyr Leu Tyr Ser Ile Cys  
1 5 10 15

Leu Leu Asn Ser Leu His Lys Leu Glu Leu Leu Ser Arg Arg Leu Arg  
20 25 30

Glu Cys Lys Tyr Val Thr His Lys Met His Trp Ser Met Val Asn Lys  
35 40 45

Thr Asn His Phe Gly Leu Val  
50 55

158

<210> 210  
 <211> 58  
 <212> PRT  
 <213> Homo sapien

<400> 210

Met Val Ile Phe Tyr Ser Ser Pro Ser Gln Asp Ser Ala Leu Ile Tyr  
 1 5 10 15

Tyr Ile Pro Phe Ile Leu Leu Tyr Arg Leu Leu Ser Glu Thr His Val  
 20 25 30

Gln Ile Arg Asp Lys Ile Leu Lys His Ile Thr Pro Ser Leu Val Phe  
 35 40 45

Ser Ile Gln Ile Leu Arg Asn Ser Cys Tyr  
 50 55

<210> 211  
 <211> 37  
 <212> PRT  
 <213> Homo sapien

<400> 211

Met Asn Leu Tyr Leu Lys Met Lys Thr Ile Pro Lys Lys Thr Cys Met  
 1 5 10 15

Ser Lys Thr Glu Leu Phe Leu Pro Phe Thr Pro Lys Tyr Leu Lys Leu  
 20 25 30

Asn Leu Ser His Phe  
 35

<210> 212  
 <211> 99  
 <212> PRT  
 <213> Homo sapien

<400> 212

Phe Phe Phe Phe Leu Arg Trp Ser Leu Ala Leu Ser Pro Arg Leu Glu  
 1 5 10 15

Cys Ser Gly Val Ile Ser Thr His Cys Asn Leu Cys Phe Pro Gly Ser  
 20 25 30

Ser Asp Ser Arg Ala Ser Pro Thr Phe Gln Val Ala Trp Ile Thr Gly

159

35

40

45

Val Arg His His Ser Trp Leu Ile Phe Val Leu Leu Val Glu Thr Gly  
 50 55 60

Phe His His Val Val Gln Ala Val Glu Leu Leu Thr Ser Arg Asp Pro  
 65 70 75 80

Pro Ala Ser Ala Ser Gln Ser Ala Ala Ile Ile Gly Val Asn His Cys  
 85 90 95

Ala Arg Pro

<210> 213  
 <211> 43  
 <212> PRT  
 <213> Homo sapien

<400> 213

Met Gln Glu Phe Thr Trp Leu Phe Glu Lys Glu Asn Phe Lys Val Ser  
 1 5 10 15

Gly Trp Thr Glu Ser His Glu Ala Arg Ser Leu Leu Thr Ala Arg Ser  
 20 25 30

Leu Glu Lys Gln Val Ser Gly Ser Phe Thr Ser  
 35 40

<210> 214  
 <211> 61  
 <212> PRT  
 <213> Homo sapien

<400> 214

Met Ala Val Asp Phe Tyr Asn Phe Val Thr Lys Leu Val Val Thr Thr  
 1 5 10 15

Gly Tyr Leu Arg Ile Ser Phe Leu Ala Tyr Lys Phe Phe Ser Phe Pro  
 20 25 30

Phe Leu Asp Ser Leu Ser Leu Cys Cys Pro Gly Leu Glu Cys Ser Gly  
 35 40 45

Val Ile Pro Ala His Tyr Asn Leu Tyr Leu Pro Gly Arg  
 50 55 60

160

<210> 215  
 <211> 127  
 <212> PRT  
 <213> Homo sapien

<400> 215

Ser Gln Asn Ile Phe Phe Gly Val Ala Ile Phe Phe Phe Ser Phe Phe  
 1 5 10 15

Arg Gln Ser Leu Ser Leu Val Ala Gln Ala Arg Val Gln Trp Arg Asp  
 20 25 30

Pro Gly Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Arg Phe Leu Gly  
 35 40 45

Leu Ser Leu Pro Ser Ser Ala Gly Tyr Arg Arg Ala Pro Pro Pro Cys  
 50 55 60

Pro Ala Leu Leu Tyr Phe Ala Val Glu Thr Gly Phe His His Val Gly  
 65 70 75 80

Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asn Pro Ala Ala Ser Ala  
 85 90 95

Ser Gln Ser Ala Gly Ile Thr Gly Thr Ser His Cys Thr Gln Pro Tyr  
 100 105 110

Tyr His Lys Ser Ser Ala Cys Trp Tyr Leu Ile Arg Phe Tyr Leu  
 115 120 125

<210> 216  
 <211> 13  
 <212> PRT  
 <213> Homo sapien

<400> 216

Met Glu Cys Ser Ser Leu Ala Glu Phe Lys Pro Val Phe  
 1 5 10

<210> 217  
 <211> 100  
 <212> PRT  
 <213> Homo sapien

<400> 217

161

Pro Gln Gln Thr Leu Lys Arg Ile Gln Gln Val Leu Ile Lys Cys Cys  
 1 5 10 15

Leu Ala Phe Tyr Leu Phe Leu Phe Phe Phe Phe Leu Arg Trp Ser Leu  
 20 25 30

Ala Leu Leu Pro Ser Leu Lys Cys Ser Gly Val Ile Ser Ala His Cys  
 35 40 45

Asn Leu Arg Leu Pro Gly Leu Gly Asp Ser Leu Ala Ser Ala Ser Arg  
 50 55 60

Val Ala Gly Met Thr Thr Gly Thr Cys His His Ala Gln Leu Ile Phe  
 65 70 75 80

Val Phe Leu Val Glu Thr Gly Phe Cys Val Ser Gln Asp Gly Leu Asp  
 85 90 95

Leu Leu Ile Ser  
 100

<210> 218  
 <211> 46  
 <212> PRT  
 <213> Homo sapien

<400> 218

Met Glu Gly Gly Glu Met Ser Thr Gln Val Glu Asn Arg Ser Glu Gly  
 1 5 10 15

Thr Ile Pro Ile Gln Thr Thr Cys Lys Ser His Asn Lys Ala Pro His  
 20 25 30

Cys Thr Glu Leu Arg His Lys Gln Arg Phe Pro Thr Asp Gly  
 35 40 45

<210> 219  
 <211> 72  
 <212> PRT  
 <213> Homo sapien

<400> 219

Ile Ser Phe Ile Phe Phe Ser Glu Ala Cys Gln Val Glu Val Arg Leu  
 1 5 10 15

Leu Leu Ala Tyr Asn Ser Ser Ala Arg Ile Pro Lys Cys Pro Trp Met

162

20

25

30

Glu Gly Gly Glu Met Ser Pro Gln Val Glu Thr Ser Ile Glu Gly Thr  
35 40 45

Ile Pro Phe Ser Lys Pro Val Lys Val Tyr Ile Met Pro Lys Pro Ala  
50 55 60

Arg Arg Pro Lys Pro Ala Arg Arg  
65 70

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<210> 220
<211> 41
<212> PRT
<213> Homo sapien
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<400> 220

Met Glu Cys Lys Val Ile Lys Cys Ser Cys Phe His Leu Glu Gly Cys  
1                  5                  10                  15

Gly Pro Glu Gly Lys Arg Ser Pro Lys Tyr Pro Pro Pro Trp Cys Ser  
20 25 30

Ser Leu Cys Leu Val Pro Ala Arg Ala  
35 40

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<210> 221
<211> 30
<212> PRT
<213> Homo sapien
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<400> 221

Met Asn Ser Phe Gly Tyr Met Thr Pro Ser Lys Phe Phe Lys Lys Glu  
1 5 10 15

Ile Thr Phe Lys Thr Thr Tyr Ile Phe Cys Phe Cys Leu Arg  
20 25 30

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<210> 222
<211> 22
<212> PRT
<213> Homo sapien
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<400> 222

Met Leu Gln Ile Gly His Leu Leu Ser Met His Ser Leu Asp Lys Asn  
1 5 10 15

163

Ile Gly Gln Val Gly Met  
20

<210> 223  
<211> 18  
<212> PRT  
<213> Homo sapien

<400> 223

Met Ser Asp Arg Val Val Ala Leu Leu Glu Val Phe Phe Pro Phe Gln  
1 5 10 15

Arg Glu

<210> 224  
<211> 133  
<212> PRT  
<213> Homo sapien

<400> 224

Met Gly Asn Ser Ile Asp Thr Val Arg Tyr Gly Lys Glu Ser Asp Leu  
1 5 10 15

Gly Asp Val Ser Glu Glu His Gly Glu Trp Asn Lys Glu Ser Ser Asn  
20 25 30

Asn Glu Gln Asp Asn Ser Leu Leu Glu Gln Tyr Leu Thr Ser Val Gln  
35 40 45

Gln Leu Glu Asp Ala Asp Glu Arg Thr Asn Phe Asp Thr Glu Thr Arg  
50 55 60

Asp Ser Lys Leu His Ile Ala Cys Phe Pro Val Gln Leu Asp Thr Leu  
65 70 75 80

Ser Asp Gly Ala Ser Val Asp Glu Ser His Gly Ile Ser Pro Pro Leu  
85 90 95

Gln Gly Glu Ile Ser Gln Thr Gln Glu Asn Ser Lys Leu Asn Ala Glu  
100 105 110

Val Gln Gly Gln Gln Pro Glu Cys Asp Ser Thr Phe Gln Leu Leu His  
115 120 125

164

Val Gly Val Thr Val  
130

<210> 225  
<211> 50  
<212> PRT  
<213> Homo sapien  
  
<400> 225

Met Arg Asn Ser Ser Pro Ile Leu Thr Pro Ala Leu Phe Ser Phe His  
1 5 10 15

Met Tyr Ile Gly Pro Leu Ile Arg Ile Phe Lys Lys Phe Pro Arg Pro  
20 25 30

Pro Asn Leu Thr Ile Asp Asp Pro Leu Ser Leu Phe Arg Arg Asn Tyr  
35 40 45

Ile Gly  
50

<210> 226  
<211> 43  
<212> PRT  
<213> Homo sapien  
  
<400> 226

Met His Ser Phe Phe Leu Ser Met Leu Cys Pro Glu Ala Leu Arg Val  
1 5 10 15

Leu Leu Lys Gln Ala Ala Gly Leu Leu Arg Glu Ile Lys Gly Phe Ile  
20 25 30

Ser Thr Thr Arg Cys Gln Asn Leu His Phe Glu  
35 40

<210> 227  
<211> 99  
<212> PRT  
<213> Homo sapien  
  
<400> 227

Met Leu Glu Arg Arg Ser Val Met Asp Arg Arg Arg Ala Gly Asn Ser  
1 5 10 15

Pro Pro Arg Ile Glu Lys Cys Leu Leu Gly Arg Glu Glu Gly Glu Ala  
20 25 30



165

Gly Ala Gly Pro Ser Pro Gly Ser Leu Leu Gly Pro Gln Lys Ala Leu  
           35                          40                          45

Asn Gln Ala Pro Ser Leu Gln Gly Lys Pro Arg Pro Gln Pro Asp Asn  
           50                          55                          60

Leu Glu Gly Arg Lys Ser Gln Thr Leu Gly Leu Phe Phe Gly Gly Ile  
   65                          70                          75                          80

Ile Gly Phe Phe Phe Phe Met Phe Leu Leu Glu Phe Cys Leu Leu Ala  
                           85                          90                          95

Asn Ser Val

<210> 228  
 <211> 44  
 <212> PRT  
 <213> Homo sapien

<400> 228

Met Lys Ser Ile Gln Leu Lys Phe Ser Tyr Ile Ile Glu Pro Gln Leu  
   1                          5                          10                          15

Asn Gly Met Asn Gly Ile Gly Asn Leu Leu Glu Met Ile Phe Met Ile  
                           20                          25                          30

Thr Phe Val Val Ile Pro Phe Ser Trp Leu Arg Phe  
           35                          40

<210> 229  
 <211> 41  
 <212> PRT  
 <213> Homo sapien

<400> 229

Tyr Phe Pro Leu Gln Ile Trp Ile Ser Glu Asp Ser Asn Asn Ile Glu  
   1                          5                          10                          15

Ala Val Asn Gln Trp Lys Glu Thr Val Ile Asn Pro Glu Lys Val Val  
                           20                          25                          30

Ile Arg Trp His Lys Leu Asn Pro Ser  
           35                          40

166

<210> 230  
 <211> 48  
 <212> PRT  
 <213> Homo sapien

<400> 230

Met Leu Lys Gly His Tyr Gln Tyr Gly Met Glu Asp Leu Ser Phe His  
 1 5 10 15

Thr Phe Ser Ser Ser Phe Leu Asn Phe Leu Leu Leu Phe Leu Leu Ser  
 20 25 30

Cys Met Val Ala Pro Phe Pro Phe Leu Leu Ser Val Pro Ser Lys Gln  
 35 40 45

<210> 231  
 <211> 108  
 <212> PRT  
 <213> Homo sapien

<400> 231

Phe Leu Lys Arg Gln Ser Ile Ser Leu Leu Pro Gln Leu Glu Cys Ser  
 1 5 10 15

Gly Thr Ile Ile Val His His Thr Leu Glu Leu Leu Gly Lys Gly Ser  
 20 25 30

Ser Leu Ala Ser Ala Ser Gln Val Ala Arg Tyr Thr Gly Met Cys Tyr  
 35 40 45

His Ala Trp Leu Ile Lys Lys Ile Phe Leu Glu Met Arg Ser Cys Cys  
 50 55 60

Val Ala Gln Ala Gly Leu Lys Leu Leu Gly Ser Asn Asn Pro Pro Thr  
 65 70 75 80

Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His Ser Thr Ala  
 85 90 95

Pro Tyr Leu Gln Ile Leu Asn Gln Ala Ile Ala Ile  
 100 105

<210> 232  
 <211> 64  
 <212> PRT  
 <213> Homo sapien

167

&lt;400&gt; 232

Met Ser Pro Arg Ala Pro Phe Ala Pro Gly Cys Pro Gln Pro Leu Val  
 1 5 10 15

Val Phe Tyr Val Cys Phe Phe Phe Phe Leu Ile Phe Cys Phe Val Lys  
 20 25 30

Lys His His Tyr Met Phe Leu Tyr Pro Arg Leu Lys Thr Phe Gly Asn  
 35 40 45

Leu Ile Ser Asn Ile Lys Ile Gln Ile Lys Thr His Ser Thr Ile Pro  
 50 55 60

&lt;210&gt; 233

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 233

Met Cys Val Asn Ala Ser Thr Val Gly Gln Met Cys Glu Asn Glu Leu  
 1 5 10 15

Lys His Met Leu Arg Ile Lys Val Asn Arg Arg Asn Phe Glu Arg Phe  
 20 25 30

Pro Leu Met  
 35

&lt;210&gt; 234

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 234

Met Asn Ile Phe Pro Trp Ala Gly Gly Pro Trp Ser Leu Pro Gln Ala  
 1 5 10 15

Arg Tyr Arg Ala Pro Ala Cys Ala Pro Thr Asn His Gly Lys Gln Arg  
 20 25 30

Arg Pro Pro His Leu Lys Ser Trp Pro Val Val Val Ser Ser Val Phe  
 35 40 45

Leu Leu Ser Glu Gln Asn Val Leu Lys Leu Glu Leu Thr Lys Val Lys  
 50 55 60

168

Ser Ser Lys Thr Thr Tyr Ala Thr  
 65 70

<210> 235  
 <211> 1163  
 <212> PRT  
 <213> Homo sapien

<400> 235

Met Asp Arg Asn Arg Glu Ala Glu Met Glu Leu Arg Arg Gly Pro Ser  
 1 5 10 15

Pro Thr Arg Ala Gly Arg Gly His Glu Val Asp Gly Asp Lys Ala Thr  
 20 25 30

Cys His Thr Cys Cys Ile Cys Gly Lys Ser Phe Pro Phe Gln Ser Ser  
 35 40 45

Leu Ser Gln His Met Arg Lys His Thr Gly Glu Lys Pro Tyr Lys Cys  
 50 55 60

Pro Tyr Cys Asp His Arg Ala Ser Gln Lys Gly Asn Leu Lys Ile His  
 65 70 75 80

Ile Arg Ser His Arg Thr Gly Thr Leu Ile Gln Gly His Glu Pro Glu  
 85 90 95

Ala Gly Glu Ala Pro Leu Gly Glu Met Arg Ala Ser Glu Gly Leu Asp  
 100 105 110

Ala Cys Ala Ser Pro Thr Lys Ser Ala Ser Ala Cys Asn Arg Leu Leu  
 115 120 125

Asn Gly Ala Ser Gln Ala Asp Gly Ala Arg Val Leu Asn Gly Ala Ser  
 130 135 140

Gln Ala Asp Ser Gly Arg Val Leu Leu Arg Ser Ser Lys Lys Gly Ala  
 145 150 155 160

Glu Gly Ser Ala Cys Ala Pro Gly Glu Ala Lys Ala Ala Val Gln Cys  
 165 170 175

Ser Phe Cys Lys Ser Gln Phe Glu Arg Lys Lys Asp Leu Glu Leu His  
 180 185 190

169

Val His Gln Ala His Lys Pro Phe Lys Cys Arg Leu Cys Ser Tyr Ala  
 195 200 205

Thr Leu Arg Glu Glu Ser Leu Leu Ser His Ile Glu Arg Asp His Ile  
 210 215 220

Thr Ala Gln Gly Pro Gly Ser Gly Glu Ala Cys Val Glu Asn Gly Lys  
 225 230 235 240

Pro Glu Leu Ser Pro Gly Glu Phe Pro Cys Glu Val Cys Gly Gln Ala  
 245 250 255

Phe Ser Gln Thr Trp Phe Leu Lys Ala His Met Lys Lys His Arg Gly  
 260 265 270

Ser Phe Asp His Gly Cys His Ile Cys Gly Arg Arg Phe Lys Glu Pro  
 275 280 285

Trp Phe Leu Lys Asn His Met Lys Ala His Gly Pro Lys Thr Gly Ser  
 290 295 300

Lys Asn Arg Pro Lys Ser Glu Leu Asp Pro Ile Ala Thr Ile Asn Asn  
 305 310 315 320

Val Val Gln Glu Glu Val Ile Val Ala Gly Leu Ser Leu Tyr Glu Val  
 325 330 335

Cys Ala Lys Cys Gly Asn Leu Phe Thr Asn Leu Asp Ser Leu Asn Ala  
 340 345 350

His Asn Ala Ile His Arg Arg Val Glu Ala Ser Arg Thr Arg Ala Pro  
 355 360 365

Ala Glu Glu Gly Ala Glu Gly Pro Ser Asp Thr Lys Gln Phe Phe Leu  
 370 375 380

Gln Cys Leu Asn Leu Arg Pro Ser Ala Ala Gly Asp Ser Cys Pro Gly  
 385 390 395 400

Thr Gln Ala Gly Arg Arg Val Ala Glu Leu Asp Pro Val Asn Ser Tyr  
 405 410 415

Gln Ala Trp Gln Leu Ala Thr Arg Gly Lys Val Ala Glu Pro Ala Glu

170

420

425

430

Tyr Leu Lys Tyr Gly Ala Trp Asp Glu Ala Leu Ala Gly Asp Val Ala  
 435 440 445

Phe Asp Lys Asp Arg Arg Glu Tyr Val Leu Val Ser Gln Glu Lys Arg  
 450 455 460

Lys Arg Glu Gln Asp Ala Pro Ala Ala Gln Gly Pro Pro Arg Lys Arg  
 465 470 475 480

Ala Ser Gly Pro Gly Asp Pro Ala Pro Ala Gly His Leu Asp Pro Arg  
 485 490 495

Ser Ala Ala Arg Pro Asn Arg Arg Ala Ala Ala Thr Thr Gly Gln Gly  
 500 505 510

Lys Ser Ser Glu Cys Phe Glu Cys Gly Lys Ile Phe Arg Thr Tyr His  
 515 520 525

Gln Met Val Leu His Ser Arg Val His Arg Arg Ala Arg Arg Glu Arg  
 530 535 540

Asp Ser Asp Gly Asp Arg Ala Ala Arg Ala Arg Cys Gly Ser Leu Ser  
 545 550 555 560

Glu Gly Asp Ser Ala Ser Gln Pro Ser Ser Pro Gly Ser Ala Cys Ala  
 565 570 575

Ala Ala Asp Ser Pro Gly Ser Gly Leu Ala Asp Glu Ala Ala Glu Asp  
 580 585 590

Ser Gly Glu Glu Gly Ala Pro Glu Pro Ala Pro Gly Gly Gln Pro Arg  
 595 600 605

Arg Cys Cys Phe Ser Glu Glu Val Thr Ser Thr Glu Leu Ser Ser Gly  
 610 615 620

Asp Gln Ser His Lys Met Gly Asp Asn Ala Ser Glu Arg Asp Thr Gly  
 625 630 635 640

Glu Ser Lys Ala Gly Ile Ala Ala Ser Val Ser Ile Leu Glu Asn Ser  
 645 650 655

171

Ser Arg Glu Thr Ser Arg Arg Gln Glu Gln His Arg Phe Ser Met Asp  
 660 665 670

Leu Lys Met Pro Ala Phe His Pro Lys Gln Glu Val Pro Val Pro Gly  
 675 680 685

Asp Gly Val Glu Phe Pro Ser Ser Thr Gly Ala Glu Gly Gln Thr Gly  
 690 695 700

His Pro Ala Glu Lys Leu Ser Asp Leu His Asn Lys Glu His Ser Gly  
 705 710 715 720

Gly Gly Lys Arg Ala Leu Ala Pro Asp Leu Met Pro Leu Asp Leu Ser  
 725 730 735

Ala Arg Ser Thr Arg Asp Asp Pro Ser Asn Lys Glu Thr Ala Ser Ser  
 740 745 750

Leu Gln Ala Ala Leu Val Val His Pro Cys Pro Tyr Cys Ser His Lys  
 755 760 765

Thr Tyr Tyr Pro Glu Val Leu Trp Met His Lys Arg Ile Trp His Arg  
 770 775 780

Val Ser Cys Asn Ser Val Ala Pro Pro Trp Ile Gln Pro Asn Gly Tyr  
 785 790 795 800

Lys Ser Ile Arg Ser Asn Leu Val Phe Leu Ser Arg Ser Gly Arg Thr  
 805 810 815

Gly Pro Pro Pro Ala Leu Gly Gly Lys Glu Cys Gln Pro Leu Leu Leu  
 820 825 830

Ala Arg Phe Thr Arg Thr Gln Val Pro Gly Gly Met Pro Gly Ser Lys  
 835 840 845

Ser Gly Ser Ser Pro Leu Gly Val Val Thr Lys Ala Ala Ser Met Pro  
 850 855 860

Lys Asn Lys Glu Ser His Ser Gly Gly Pro Cys Ala Leu Trp Ala Pro  
 865 870 875 880

Gly Pro Asp Gly Tyr Arg Gln Thr Lys Pro Cys His Gly Gln Glu Pro  
 885 890 895

172

His Gly Ala Ala Thr Gln Gly Pro Leu Ala Lys Pro Arg Gln Glu Ala  
                   900                                  905                                  910

Ser Ser Lys Pro Val Pro Ala Pro Gly Gly Gly Gly Phe Ser Arg Ser  
           915                                  920                                  925

Ala Thr Pro Thr Pro Thr Val Ile Ala Arg Ala Gly Ala Gln Pro Ser  
       930                                  935                                  940

Ala Asn Ser Lys Pro Val Glu Lys Phe Gly Val Pro Pro Ala Gly Ala  
   945                                  950                                  955                                  960

Gly Phe Ala Pro Thr Asn Lys His Ser Ala Pro Asp Ser Leu Lys Ala  
                                   965                                  970                                  975

Lys Phe Ser Ala Gln Pro Gln Gly Pro Pro Pro Ala Lys Gly Glu Gly  
                                   980                                  985                                  990

Gly Ala Pro Pro Leu Pro Pro Arg Glu Pro Pro Ser Lys Ala Ala Gln  
           995                                  1000                                  1005

Glu Leu Arg Thr Leu Ala Thr Cys Ala Ala Gly Ser Arg Gly Asp  
       1010                                  1015                                  1020

Ala Ala Leu Gln Ala Gln Pro Gly Val Ala Gly Ala Pro Pro Val  
       1025                                  1030                                  1035

Leu His Ser Ile Lys Gln Glu Pro Val Ala Glu Gly His Glu Lys  
       1040                                  1045                                  1050

Arg Leu Asp Ile Leu Asn Ile Phe Lys Thr Tyr Ile Pro Lys Asp  
       1055                                  1060                                  1065

Phe Ala Thr Leu Tyr Gln Gly Trp Gly Val Ser Gly Pro Gly Leu  
       1070                                  1075                                  1080

Glu His Arg Gly Thr Leu Arg Thr Gln Ala Arg Pro Gly Glu Phe  
       1085                                  1090                                  1095

Val Cys Ile Glu Cys Gly Lys Ser Phe His Gln Pro Gly His Leu  
       1100                                  1105                                  1110

Arg Ala His Met Arg Ala His Ser Val Val Phe Glu Ser Asp Gly  
       1115                                  1120                                  1125



173

Pro Arg Gly Ser Glu Val His Thr Thr Ser Ala Asp Ala Pro Lys  
 1130 1135 1140

Gln Gly Arg Asp His Ser Asn Thr Gly Thr Val Gln Thr Val Pro  
 1145 1150 1155

Leu Arg Lys Gly Thr  
 1160

<210> 236  
 <211> 55  
 <212> PRT  
 <213> Homo sapien

<400> 236

Met Cys Val Phe Cys Gly Phe Phe Cys Ser Arg Phe Val Arg Glu Met  
 1 5 10 15

Trp Gly Asn Phe Gly Pro Lys Thr Asn Phe Thr Pro Gly Thr Pro Phe  
 20 25 30

Cys Pro Trp Leu Ser Pro Asn Leu Phe Cys Leu Val Val Val Trp Phe  
 35 40 45

Tyr Arg Leu Leu Ile Phe Tyr  
 50 55

<210> 237  
 <211> 156  
 <212> PRT  
 <213> Homo sapien

<400> 237

Met Pro Met Glu Gly His Thr Leu Cys Met Arg Ile Arg Gly Ser Trp  
 1 5 10 15

Leu Ala Ala Arg Leu Pro Val Met Pro Phe Glu Gly Asp Val Gly Pro  
 20 25 30

Trp Val Arg Met Lys Val Phe Ile Cys His Ser Ser Ser Pro Gln Val  
 35 40 45

Ala Ile His Leu Gly Gly Gly Arg Glu Gly Ser Ala Leu Ala Ile Val  
 50 55 60

174

Tyr Pro Ala Ser Leu Arg Phe Ile Asp Leu His Lys Arg Leu Cys Ser  
65 70 75 80

Gly Lys Gly Arg Gly Pro Gln Lys Gly Ala Trp Gln Asp Arg Trp Met  
85 90 95

Leu Tyr Gly His Met Glu Ile Thr Pro Ser Ser Leu Ala Pro Ala Ser  
100 105 110

Ala Ser Arg Pro Leu His Gly Val Arg Cys Phe Cys Ala Cys Cys Pro  
115 120 125

Thr Ser Leu His Ser Arg Ala Leu Ile Asn His Phe Asp Pro Pro Leu  
130 135 140

Ala Glu Gly Ser Pro Leu Tyr Arg Val Gln Ser Leu  
145 150 155

<210> 238  
<211> 86  
<212> PRT  
<213> Homo sapien

<400> 238

Met Met Asn Phe Leu Cys Leu Asn Phe Arg Asp Ile Trp Cys Asp Phe  
1 5 10 15

His Leu Tyr Leu Met Leu Pro Leu Leu Pro Ser Leu Leu Asn Thr Ser  
20 25 30

Lys Asn Ser Glu His Ile Leu Ile Pro Pro Val Phe Tyr Phe Tyr Asp  
35 40 45

Leu Asp Ile Leu His His Lys Ile Pro Pro Asn Trp Asp Tyr Val Phe  
50 55 60

Glu Val Ile His Phe Thr Ile Ile Thr Thr Ile Thr Ile Ile Phe Ile  
65 70 75 80

Val Cys Phe Val Pro Gly  
85

<210> 239  
<211> 289  
<212> PRT

175

&lt;213&gt; Homo sapien

&lt;400&gt; 239

Ala Asp Leu Ser Phe Ile Glu Asp Thr Val Ala Phe Pro Glu Lys Glu  
1 5 10 15

Glu Asp Glu Glu Glu Glu Glu Gly Val Glu Trp Gly Tyr Glu Glu  
20 25 30

Gly Val Glu Trp Gly Leu Val Phe Pro Asp Ala Asn Gly Glu Tyr Gln  
35 40 45

Ser Pro Ile Asn Leu Asn Ser Arg Glu Ala Arg Tyr Asp Pro Ser Leu  
50 55 60

Leu Asp Val Arg Leu Ser Pro Asn Tyr Val Val Cys Arg Asp Cys Glu  
65 70 75 80

Val Thr Asn Asp Gly His Thr Ile Gln Val Ile Leu Lys Ser Lys Ser  
85 90 95

Val Leu Ser Gly Gly Pro Leu Pro Gln Gly His Glu Phe Glu Leu Tyr  
100 105 110

Glu Val Arg Phe His Trp Gly Arg Glu Asn Gln Arg Gly Ser Glu His  
115 120 125

Thr Val Asn Phe Lys Ala Phe Pro Met Glu Leu His Leu Ile His Trp  
130 135 140

Asn Ser Thr Leu Phe Gly Ser Ile Asp Glu Ala Val Gly Lys Pro His  
145 150 155 160

Gly Ile Ala Ile Ile Ala Leu Phe Val Gln Ile Gly Lys Glu His Val  
165 170 175

Gly Leu Lys Ala Val Thr Glu Ile Leu Gln Asp Ile Gln Tyr Lys Gly  
180 185 190

Lys Ser Lys Thr Ile Pro Cys Phe Asn Pro Asn Thr Leu Leu Pro Asp  
195 200 205

Pro Leu Leu Arg Asp Tyr Trp Val Tyr Glu Gly Ser Leu Thr Ile Pro  
210 215 220

176

Pro Cys Ser Glu Gly Val Thr Trp Ile Leu Phe Arg Tyr Pro Leu Thr  
 225 230 235 240

Ile Ser Gln Leu Gln Ile Glu Glu Phe Arg Arg Leu Arg Thr His Val  
 245 250 255

Lys Gly Ala Glu Leu Val Glu Gly Cys Asp Gly Ile Leu Gly Asp Asn  
 260 265 270

Phe Arg Pro Thr Gln Pro Leu Ser Asp Arg Val Ile Arg Ala Ala Phe  
 275 280 285

Gln

<210> 240  
 <211> 59  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 240

Met Cys Gln Ile Asp Arg Gln Asp Leu Val Leu Leu Lys Leu Val Ile  
 1 5 10 15

Tyr Cys Ser Arg His Leu Lys Gly Trp Arg Arg Ser Glu His Tyr Val  
 20 25 30

Pro Ala Arg Ala Ser Ile Thr Leu Arg Arg Ser Thr Ser His Leu Val  
 35 40 45

Ala Arg Ser Pro Asn Met Ser Ser Ser Gly Val  
 50 55

<210> 241  
 <211> 41  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 241

Met Leu Leu Asn Gly Leu His Asn Pro Ala Leu Lys His Leu Arg Asp  
 1 5 10 15

Leu Cys Lys Thr Phe Pro Trp Ser Leu Cys Phe Ser His Ile Asn Gln  
 20 25 30

177

Leu Ala Tyr Phe Ser His Ser Pro Ser  
 35 40

<210> 242  
 <211> 80  
 <212> PRT  
 <213> Homo sapien  
 <400> 242

Met Asn Cys Leu Tyr Pro Ser Pro Met Cys Phe Tyr Arg Ser Cys Leu  
 1 5 10 15

Val His Phe Val Ala Asp Leu Leu Gly Asp Phe Thr Glu Gly Lys Val  
 20 25 30

Ser Ser Lys Leu Tyr Asp Asp Phe Met Leu Ile Asp Leu Leu Ser Ser  
 35 40 45

Gly Ser Trp Glu Thr His Ser Ala Ile Ser Leu Leu Ser Tyr Phe Ser  
 50 55 60

Tyr Asp Ala Gln Pro Pro Lys Ala Thr Arg Glu Gln Tyr Arg Val Pro  
 65 70 75 80

<210> 243  
 <211> 45  
 <212> PRT  
 <213> Homo sapien  
 <400> 243

Glu Arg Pro Gly Met Leu Asp Phe Thr Gly Lys Ala Lys Trp Asp Ala  
 1 5 10 15

Trp Asn Glu Leu Lys Gly Thr Ser Lys Glu Asp Ala Met Lys Ala Tyr  
 20 25 30

Ile Asn Lys Val Glu Glu Leu Lys Lys Lys Tyr Gly Ile  
 35 40 45

<210> 244  
 <211> 24  
 <212> PRT  
 <213> Homo sapien  
 <400> 244

Met Cys Leu Asn Phe Ser Phe Asn Tyr Leu Ile Pro Phe Ala Gln Glu  
 1 5 10 15

178

Ile Thr Ile Ser Leu Phe Phe Phe  
20

<210> 245  
<211> 69  
<212> PRT  
<213> Homo sapien

<400> 245

Leu Phe Phe Gln Leu Phe Asp Thr Phe Cys Pro Arg Asp Tyr Tyr Leu  
1 5 10 15

Ser Leu Phe Phe Phe Ser Phe Lys Thr Glu Cys Cys Ser Val Thr Gln  
20 25 30

Val Gly Val Gln Trp His Asn Ser Ala Ser Leu Gln Pro Leu Pro Pro  
35 40 45

Arg Leu Lys Arg Ser Ser His Leu Ser Leu Pro Ser Ser Trp Asp His  
50 55 60

Arg His Ile Pro Pro  
65

<210> 246  
<211> 39  
<212> PRT  
<213> Homo sapien

<400> 246

Met Glu Thr Lys His His Ser His Lys Lys Ser Asn Ser Ile Leu Asn  
1 5 10 15

His Trp Lys Val Thr Ile Pro Leu Tyr Ser Phe Pro Lys Leu Phe Val  
20 25 30

Ala Lys Ser Tyr Arg Lys Glu  
35

<210> 247  
<211> 93  
<212> PRT  
<213> Homo sapien

<400> 247

179

Leu Leu Gln Ala Leu Lys Lys Ile Phe Phe Leu Asn Ser Leu Thr Leu  
 1 5 10 15

Ser Pro Arg Leu Glu Ala Ser Asn Val Ile Ser Ala His Cys Asn Leu  
 20 25 30

His Ser Arg Val Ala Gly Ile Thr Asp Met His His His Pro Gln Leu  
 35 40 45

Ile Phe Val Phe Leu Val Glu Thr Gly Phe Arg His Val Gly Gln Ala  
 50 55 60

Gly Leu Ala Leu Leu Ala Leu Arg Asp Pro Pro Pro Leu Ala Phe Gln  
 65 70 75 80

Ser Ala Gly Ile Thr Gly Val Ser His Cys Thr Trp Pro  
 85 90

<210> 248  
 <211> 51  
 <212> PRT  
 <213> Homo sapien

<400> 248

Met Phe Phe Phe Phe Val Phe Phe Phe Phe Leu Phe Ala Arg Phe Ser  
 1 5 10 15

Arg Asn Val Gly Asp Leu Trp Ala Gly Lys Pro Phe Pro Pro Gly His  
 20 25 30

Val Leu Pro Arg Tyr Pro His Leu Phe Phe Phe Phe Phe Phe Cys  
 35 40 45

Phe Ile Thr  
 50

<210> 249  
 <211> 62  
 <212> PRT  
 <213> Homo sapien

<400> 249

Met Asn Phe Thr Leu Ala Ile Phe His Tyr Phe Ser Leu Ser Gln Met  
 1 5 10 15

Ser Val Leu Met Arg Gln Leu Ala Leu Thr Gly Ala Thr Leu Met Cys

180

20

25

30

His Leu Pro Thr Phe Asn Phe Trp Val Lys Ala Glu Arg Glu Lys Leu  
 35 40 45

Met Asp Phe Ser Phe Ser Arg Arg Asp Lys Asn Gln Leu His  
 50 55 60

<210> 250  
 <211> 190  
 <212> PRT  
 <213> Homo sapien

<400> 250

Met Lys Leu Gln Leu Arg Ile Lys Ser Leu Thr Gln Asn Arg Thr Thr  
 1 5 10 15

Thr Trp Lys Leu Asn Asn Leu Leu Leu Asn Asp Tyr Trp Val Asn Lys  
 20 25 30

Lys Ile Lys Ala Glu Ile Asn Lys Phe Phe Glu Thr Ile Glu Asn Lys  
 35 40 45

Asp Thr Met Tyr Gln Asn Thr Ala Lys Ala Val Phe Arg Gly Lys Phe  
 50 55 60

Ile Ala Leu Asn Thr His Ile Arg Asn Trp Glu Ile Pro Lys Ile Asn  
 65 70 75 80

Val Leu Thr Ser Gln Leu Lys Glu Leu Glu Lys Arg Glu Gln Thr His  
 85 90 95

Ser Lys Gln Glu Ile Thr Lys Ile Ile Ala Glu Leu Lys Glu Ile Glu  
 100 105 110

Thr Gln Lys Ala Leu Gln Lys Ile Ser Asp Ser Arg Ser Trp Phe Phe  
 115 120 125

Glu Lys Ile Asn Lys Thr Asp Arg Leu Leu Ala Arg Ile Ile Lys Lys  
 130 135 140

Lys Arg Glu Lys Asn Gln Ile Asp Thr Ile Lys Asn Asp Lys Gly Asp  
 145 150 155 160

Ile Thr Thr Asn Pro Thr Glu Ile Gln Thr Ala Ile Arg Glu Cys Tyr



181

165

170

175

Gln His Leu Tyr Ile Asn Lys Leu Glu Asn Leu Glu Glu Ile  
 180 185 190

<210> 251  
 <211> 132  
 <212> PRT  
 <213> Homo sapien

<400> 251

Met Pro Val Leu Ser Pro Pro Leu His Met Pro Tyr Pro Ala Ala Lys  
 1 5 10 15

Leu Asp Ser Val Leu Pro Asp Lys Thr Trp Tyr Trp His Leu Tyr Ala  
 20 25 30

Ser Val Cys Leu Pro Ser Thr Phe Lys Lys Pro Leu Gln Ser Ala Asp  
 35 40 45

Thr Lys Lys Gln Ser His Thr Cys Ser Lys Ser Ala Cys Phe Pro Leu  
 50 55 60

Ile Ser Ala Ser Cys Gln Arg His Cys Leu Thr Ser Ser Ser Leu Leu  
 65 70 75 80

Ser Ile Cys Val Pro His Lys Thr Leu Arg Asp Ser Ala Ser Tyr Val  
 85 90 95

Tyr Gly Leu Trp Val Phe Ile Ser Thr Val Pro Cys Leu Thr Leu Ser  
 100 105 110

Pro Cys Gly Glu Tyr Thr His Pro Thr Pro Thr Val Pro Cys Thr Ser  
 115 120 125

Val Ala Ala Gln  
 130

<210> 252  
 <211> 30  
 <212> PRT  
 <213> Homo sapien

<400> 252

Met Gln Phe Arg Ile His Ala Ser Phe Ser Val Lys Trp Arg Ser Tyr  
 1 5 10 15

182

Ser Phe Asn Ser Glu Asn Ser Gln Leu Asn Lys Gln Pro Leu  
 20 25 30

<210> 253  
 <211> 49  
 <212> PRT  
 <213> Homo sapien

<400> 253

Met Arg Val Val Trp Gly Trp Arg Cys Gly Cys Val Gly Val Leu Val  
 1 5 10 15

Leu Val Val Gly Gly Cys Val Glu Trp Ala Val Val Phe Gly Val Cys  
 20 25 30

Val Gly Cys Val Val Trp Val Gly Arg Trp Trp Cys Asp Val Val Val  
 35 40 45

Trp

<210> 254  
 <211> 54  
 <212> PRT  
 <213> Homo sapien

<400> 254

Met Lys Lys Ser Val Ser Cys Cys Ser Ser Leu Trp Val Ser Leu Ser  
 1 5 10 15

Lys Asp Glu Asn Ala Glu Val Gly Arg Gly Asp Ser Leu Leu Gly Thr  
 20 25 30

Gly Arg Cys Gly Leu Pro Ile Thr Arg Leu Lys Leu Thr Ser Leu Pro  
 35 40 45

Ser Ser Pro Thr Val Val  
 50

<210> 255  
 <211> 1088  
 <212> PRT  
 <213> Homo sapien

<400> 255

183

Asp Asp Ser Leu Ile Ser Ser Ala Thr Ala Ile Met Glu Ala Val Val  
 1 5 10 15  
 Arg Glu Trp Ile Leu Leu Glu Lys Gly Ser Ile Glu Ser Leu Arg Thr  
 20 25 30  
 Phe Leu Leu Thr Tyr Val Leu Gln Arg Pro Asn Leu Gln Lys Tyr Val  
 35 40 45  
 Arg Glu Gln Ile Leu Leu Ala Val Ala Val Ile Val Lys Arg Gly Ser  
 50 55 60  
 Leu Asp Lys Ser Ile Asp Cys Lys Ser Ile Phe His Glu Val Ser Gln  
 65 70 75 80  
 Leu Ile Ser Ser Gly Asn Pro Thr Val Gln Thr Leu Ala Cys Ser Ile  
 85 90 95  
 Leu Thr Ala Leu Leu Ser Glu Phe Ser Ser Ser Ser Lys Thr Ser Asn  
 100 105 110  
 Ile Gly Leu Ser Met Glu Phe His Gly Asn Cys Lys Arg Val Phe Gln  
 115 120 125  
 Glu Glu Asp Leu Arg Gln Ile Phe Met Leu Thr Val Glu Val Leu Gln  
 130 135 140  
 Glu Phe Ser Arg Arg Glu Asn Leu Asn Ala Gln Met Ser Ser Val Phe  
 145 150 155 160  
 Gln Arg Tyr Leu Ala Leu Ala Asn Gln Val Leu Ser Trp Asn Phe Leu  
 165 170 175  
 Pro Pro Asn Leu Gly Arg His Tyr Ile Ala Met Phe Glu Ser Ser Gln  
 180 185 190  
 Asn Val Leu Leu Lys Pro Thr Glu Ser Leu Arg Glu Thr Leu Leu Asp  
 195 200 205  
 Ser Arg Val Met Glu Leu Phe Phe Thr Val His Arg Lys Ile Arg Glu  
 210 215 220  
 His Ser Asp Met Ala Gln Asp Ser Leu Gln Cys Leu Ala Gln Leu Ala  
 225 230 235 240

184

Ser Leu His Gly Pro Ile Phe Pro Asp Glu Gly Ser Gln Val Asp Tyr  
245 250 255

Leu Ala His Phe Ile Glu Gly Leu Leu Asn Thr Ile Asn Gly Ile Glu  
260 265 270

Ile Glu Asp Ser Glu Ala Val Gly Ile Ser Ser Ile Ile Ser Asn Leu  
275 280 285

Ile Thr Val Phe Pro Arg Asn Val Leu Thr Ala Ile Pro Ser Glu Leu  
290 295 300

Phe Ser Ser Phe Val Asn Cys Leu Thr His Leu Thr Cys Ser Phe Gly  
305 310 315 320

Arg Ser Ala Ala Leu Glu Glu Val Leu Asp Lys Asp Asp Met Val Tyr  
325 330 335

Met Glu Ala Tyr Asp Lys Leu Leu Glu Ser Trp Leu Thr Leu Val Gln  
340 345 350

Asp Asp Lys His Phe His Lys Gly Phe Phe Thr Gln His Ala Val Gln  
355 360 365

Val Phe Asn Ser Tyr Ile Gln Cys His Leu Ala Ala Pro Asp Gly Thr  
370 375 380

Arg Asn Leu Thr Ala Asn Gly Val Ala Ser Arg Glu Glu Glu Glu Ile  
385 390 395 400

Ser Glu Leu Gln Glu Asp Asp Arg Asp Gln Phe Ser Asp Gln Leu Ala  
405 410 415

Ser Val Gly Met Leu Gly Arg Ile Ala Ala Glu His Cys Ile Pro Leu  
420 425 430

Leu Thr Ser Leu Leu Glu Glu Arg Val Thr Arg Leu His Gly Gln Leu  
435 440 445

Gln Arg His Gln Gln Gln Leu Leu Ala Ser Pro Gly Ser Ser Thr Val  
450 455 460

Asp Asn Lys Met Leu Asp Asp Leu Tyr Glu Asp Ile His Trp Leu Ile  
465 470 475 480

185

Leu Val Thr Gly Tyr Leu Leu Ala Asp Asp Thr Gln Gly Glu Thr Pro  
 485 490 495

Leu Ile Pro Pro Glu Ile Met Glu Tyr Ser Ile Lys His Ser Ser Glu  
 500 505 510

Val Asp Ile Asn Thr Thr Leu Gln Ile Leu Gly Ser Pro Gly Glu Lys  
 515 520 525

Ala Ser Ser Ile Pro Gly Tyr Asn Arg Thr Asp Ser Val Ile Arg Leu  
 530 535 540

Leu Ser Ala Ile Leu Arg Val Ser Glu Val Glu Ser Arg Ala Ile Arg  
 545 550 555 560

Ala Asp Leu Thr His Leu Leu Ser Pro Gln Met Gly Lys Asp Ile Val  
 565 570 575

Trp Phe Leu Lys Arg Trp Ala Lys Thr Tyr Leu Leu Val Asp Glu Lys  
 580 585 590

Leu Tyr Asp Gln Ile Ser Leu Pro Phe Ser Thr Ala Phe Gly Ala Asp  
 595 600 605

Thr Glu Gly Ser Gln Trp Ile Ile Gly Tyr Leu Leu Gln Lys Val Ile  
 610 615 620

Ser Asn Leu Ser Val Trp Ser Ser Glu Gln Asp Leu Ala Asn Asp Thr  
 625 630 635 640

Val Gln Leu Leu Val Thr Leu Val Glu Arg Arg Glu Arg Ala Asn Leu  
 645 650 655

Val Ile Gln Cys Glu Asn Trp Trp Asn Leu Ala Lys Gln Phe Ala Ser  
 660 665 670

Arg Ser Pro Pro Leu Asn Phe Leu Ser Ser Pro Val Gln Arg Thr Leu  
 675 680 685

Met Lys Ala Leu Val Leu Gly Gly Phe Ala His Met Asp Thr Glu Thr  
 690 695 700

Lys Gln Gln Tyr Trp Thr Glu Val Leu Gln Pro Leu Gln Gln Arg Phe

705 186 710 715 720  
 Leu Arg Val Ile Asn Gln Glu Asn Phe Gln Gln Met Cys Gln Gln Glu  
 725 730 735  
 Glu Val Lys Gln Glu Ile Thr Ala Thr Leu Glu Ala Leu Cys Gly Ile  
 740 745 750  
 Ala Glu Ala Thr Gln Ile Asp Asn Val Ala Ile Leu Phe Asn Phe Leu  
 755 760 765  
 Met Asp Phe Leu Thr Asn Cys Ile Gly Leu Met Glu Val Tyr Lys Asn  
 770 775 780  
 Thr Pro Glu Thr Val Asn Leu Ile Ile Glu Val Phe Val Glu Val Ala  
 785 790 795 800  
 His Lys Gln Ile Cys Tyr Leu Gly Glu Ser Lys Ala Met Asn Leu Tyr  
 805 810 815  
 Glu Ala Cys Leu Thr Leu Leu Gln Val Tyr Ser Lys Asn Asn Leu Gly  
 820 825 830  
 Arg Gln Arg Ile Asp Val Thr Ala Glu Glu Glu Gln Tyr Gln Asp Leu  
 835 840 845  
 Leu Leu Ile Met Glu Leu Leu Thr Asn Leu Leu Ser Lys Glu Phe Ile  
 850 855 860  
 Asp Phe Ser Asp Thr Asp Glu Val Phe Arg Gly His Glu Pro Gly Gln  
 865 870 875 880  
 Ala Ala Asn Arg Ser Val Ser Ala Ala Asp Val Val Leu Tyr Gly Val  
 885 890 895  
 Asn Leu Ile Leu Pro Leu Met Ser Gln Asp Leu Leu Lys Phe Pro Thr  
 900 905 910  
 Leu Cys Asn Gln Tyr Tyr Lys Leu Ile Thr Phe Ile Cys Glu Ile Phe  
 915 920 925  
 Pro Glu Lys Ile Pro Gln Leu Pro Glu Asp Leu Phe Lys Ser Leu Met  
 930 935 940

187

Tyr Ser Leu Glu Leu Gly Met Thr Ser Met Ser Ser Glu Val Cys Gln  
 945 950 955 960

Leu Cys Leu Glu Ala Leu Thr Pro Leu Ala Glu Gln Cys Ala Lys Ala  
 965 970 975

Gln Glu Thr Asp Ser Pro Leu Phe Leu Ala Thr Arg His Phe Leu Lys  
 980 985 990

Leu Val Phe Asp Met Leu Val Leu Gln Lys His Asn Thr Glu Met Thr  
 995 1000 1005

Thr Ala Ala Gly Glu Ala Phe Tyr Thr Leu Val Cys Leu His Gln  
 1010 1015 1020

Ala Glu Tyr Ser Glu Leu Val Glu Thr Leu Leu Ser Ser Gln Gln  
 1025 1030 1035

Asp Pro Val Ile Tyr Gln Arg Leu Ala Asp Ala Phe Asn Lys Leu  
 1040 1045 1050

Thr Ala Ser Ser Thr Pro Pro Thr Leu Asp Arg Lys Gln Lys Met  
 1055 1060 1065

Ala Phe Leu Lys Ser Leu Glu Glu Phe Met Ala Asn Val Gly Gly  
 1070 1075 1080

Leu Leu Cys Val Lys  
 1085

<210> 256  
 <211> 78  
 <212> PRT  
 <213> Homo sapien

<400> 256

Met Val Leu Met Thr Ser Ser Gly Gln Pro Ser Cys Pro Gly Ile Met  
 1 5 10 15

Ala Cys Gln His Ser Leu Cys Pro Pro Asn Leu Arg Pro Arg Met Arg  
 20 25 30

Ser Cys Gln His Asn Ile His Pro Phe Glu Gln Met Glu Ser Gly Thr  
 35 40 45

188

Leu Thr Gln Pro Ser Val Leu Asn Asn Thr Ala Ile Ile Ala Thr Trp  
 50 55 60

Leu Ser Arg Gln Cys Lys Pro Ser Glu Ser Ala Glu Leu Phe  
 65 70 75

<210> 257  
 <211> 595  
 <212> PRT  
 <213> Homo sapien

<400> 257

Val Gln Lys Thr Asn Gln Cys Leu Gln Gly Gln Ser Leu Lys Thr Ser  
 1 5 10 15

Leu Thr Leu Lys Val Asp Arg Gly Ser Glu Glu Thr Tyr Arg Pro Glu  
 20 25 30

Phe Pro Ser Thr Lys Gly Leu Val Arg Ser Leu Ala Glu Gln Phe Gln  
 35 40 45

Arg Met Gln Gly Val Ser Met Arg Asp Ser Thr Gly Phe Lys Asp Arg  
 50 55 60

Ser Leu Ser Gly Ser Leu Arg Lys Asn Ser Ser Pro Ser Asp Ser Lys  
 65 70 75 80

Pro Pro Phe Ser Gln Gly Gln Glu Lys Gly His Trp Pro Trp Ala Lys  
 85 90 95

Gln Gln Ser Ser Leu Glu Gly Gly Asp Arg Pro Leu Ser Trp Glu Glu  
 100 105 110

Ser Thr Glu His Ser Ser Leu Ala Leu Asn Ser Gly Leu Pro Asn Gly  
 115 120 125

Glu Thr Ser Ser Gly Gly Gln Pro Arg Leu Ala Glu Pro Asp Ile Tyr  
 130 135 140

Gln Glu Lys Leu Ser Gln Val Arg Asp Val Arg Ser Lys Asp Leu Gly  
 145 150 155 160

Ser Ser Thr Asp Leu Gly Thr Ser Leu Pro Leu Asp Ser Trp Val Asn  
 165 170 175



189

Ile Thr Arg Phe Cys Asp Ser Gln Leu Lys His Gly Ala Pro Arg Pro  
 180 185 190

Gly Met Lys Ser Ser Pro His Asp Ser His Thr Cys Val Thr Tyr Pro  
 195 200 205

Glu Arg Asn His Ile Leu Leu His Pro His Trp Asn Gln Asp Thr Glu  
 210 215 220

Gln Glu Thr Ser Glu Leu Glu Ser Leu Tyr Gln Ala Ser Leu Gln Ala  
 225 230 235 240

Ser Gln Ala Gly Cys Ser Gly Trp Gly Gln Gln Asp Thr Ala Trp His  
 245 250 255

Pro Leu Ser Gln Thr Gly Ser Ala Asp Gly Met Gly Arg Arg Leu His  
 260 265 270

Ser Ala His Asp Pro Gly Leu Ser Lys Thr Ser Thr Ala Glu Met Glu  
 275 280 285

His Gly Leu His Glu Ala Arg Thr Val Arg Thr Ser Gln Ala Thr Pro  
 290 295 300

Cys Arg Gly Leu Ser Arg Glu Cys Gly Glu Asp Glu Gln Tyr Ser Ala  
 305 310 315 320

Glu Asn Leu Arg Arg Ile Ser Arg Ser Leu Ser Gly Thr Val Val Ser  
 325 330 335

Glu Arg Glu Glu Ala Pro Val Ser Ser His Ser Phe Asp Ser Ser Asn  
 340 345 350

Val Arg Lys Pro Leu Glu Thr Gly His Arg Cys Ser Ser Ser Ser  
 355 360 365

Leu Pro Val Ile His Asp Pro Ser Val Phe Leu Leu Gly Pro Gln Leu  
 370 375 380

Tyr Leu Pro Gln Pro Gln Phe Leu Ser Pro Asp Val Leu Met Pro Thr  
 385 390 395 400

Met Ala Gly Glu Pro Asn Arg Leu Pro Gly Thr Ser Arg Ser Val Gln  
 405 410 415

190

Gln Phe Leu Ala Met Cys Asp Arg Gly Glu Thr Ser Gln Gly Ala Lys  
 420 425 430

Tyr Thr Gly Arg Thr Leu Asn Tyr Gln Ser Leu Pro His Arg Ser Arg  
 435 440 445

Thr Asp Asn Ser Trp Ala Pro Trp Ser Glu Thr Asn Gln His Ile Gly  
 450 455 460

Thr Arg Phe Leu Thr Thr Pro Gly Cys Asn Pro Gln Leu Thr Tyr Thr  
 465 470 475 480

Ala Thr Leu Pro Glu Arg Ser Lys Gly Leu Gln Val Pro His Thr Gln  
 485 490 495

Ser Trp Ser Asp Leu Phe His Ser Pro Ser His Pro Pro Ile Val His  
 500 505 510

Pro Val Tyr Pro Pro Ser Ser Ser Leu His Val Pro Leu Arg Ser Ala  
 515 520 525

Trp Asn Ser Asp Pro Val Pro Gly Ser Arg Thr Pro Gly Pro Arg Arg  
 530 535 540

Val Asp Met Pro Pro Asp Asp Asp Trp Arg Gln Ser Ser Tyr Ala Ser  
 545 550 555 560

His Ser Gly His Arg Arg Thr Val Gly Glu Gly Phe Leu Phe Val Leu  
 565 570 575

Ser Asp Ala Pro Arg Arg Glu Gln Ile Arg Ala Arg Val Leu Gln His  
 580 585 590

Ser Gln Trp  
 595

<210> 258  
 <211> 55  
 <212> PRT  
 <213> Homo sapien

<400> 258

Met Thr Val Met Ile Leu Leu Phe Lys Lys Asn Pro Asn Cys Tyr Phe  
 1 5 10 15

191

Asp Leu Tyr Asp Leu Thr Leu Asn His Gly Ser Ile Thr Met Met Phe  
                   20                                  25  30

Lys Thr Leu Ile Asp Ser Thr Cys Phe Lys Asn Ser Gln Ile Pro Ser  
           35                                  40  45

Ala Phe Ile Ile Arg Asp Arg  
           50                                  55

<210> 259  
 <211> 43  
 <212> PRT  
 <213> Homo sapien

<400> 259

Met Met Leu Thr Met Glu Phe Lys Asn Lys Gln Gln His Phe Val Val  
   1                                  5                                  10  15

Ser Thr Gly Val Gly Val Glu Glu Leu Gln Arg His His Gly Asn Lys  
                   20                                  25  30

Ser Leu Pro Arg Ile Ser Gly Pro Arg Asn Leu  
           35                                  40

<210> 260  
 <211> 75  
 <212> PRT  
 <213> Homo sapien

<400> 260

Met Ala Tyr Arg Met Lys Arg Gly Thr Arg Asn Pro Cys Gly Arg Gly  
   1                                  5                                  10  15

Leu Asp Leu Lys Gln Cys Pro Leu Trp Leu Leu Leu Pro Trp Leu Thr  
                   20                                  25  30

Gly Phe Leu Asp His Val His Phe Thr Gly Pro Trp Asp Leu His Leu  
           35                                  40  45

Leu Ala Ser Pro Ala Gly Leu Ile Pro Ala Arg Ala Pro Ser Phe Leu  
           50                                  55  60

Leu Met Val Phe Arg Trp Pro Asp His Gly Lys  
   65                                  70  75

192

<210> 261  
 <211> 218  
 <212> PRT  
 <213> Homo sapien

<400> 261

Met Ile Asn His Leu Ser Pro His Gln Ala Ala Ala Pro Val Asp Gln  
 1 5 10 15

Thr Pro Arg Thr Leu Ala Thr Met Gly Gln Arg Ala Leu Pro Ser Ser  
 20 25 30

Leu Ala Leu Leu Ser Arg Pro Leu Ser Pro Pro Pro Ala Ala Cys Ser  
 35 40 45

Gly Asp Pro Gly Cys Gly Ser Gly Ala Gly Leu Pro Ser Ala Ser Ala  
 50 55 60

Ala Ala Gly Ile Ala Ser Ser Ala Val Glu Ala Val Cys Gly Asp Ala  
 65 70 75 80

Ala Pro Ala Cys Leu Leu Arg Thr Pro Leu Arg Gly Leu Leu Lys Pro  
 85 90 95

Thr Gly Pro Arg Ser Thr Met Glu Cys Pro Pro Ala Leu Ile Val Gln  
 100 105 110

Pro Pro Ala Gly Gly Met Ala Arg Arg Ala Ala Ser Gln Pro Trp Ala  
 115 120 125

Ala Ala Ser Ala Thr Pro Met Leu Ser Ser Lys Ala Ser Leu Cys Ile  
 130 135 140

Pro Thr Glu Arg Pro Pro Pro Gln Pro Leu Met Arg Thr Pro Ala Ala  
 145 150 155 160

Arg Ser His Trp Pro Ile Pro His Pro Ala Ser Thr Ala Cys Pro Ala  
 165 170 175

Pro Leu Pro Val Val Leu Val Ala Pro Arg Ser Thr Ile Leu Ser Met  
 180 185 190

Ser Arg Thr Trp Thr Cys Arg Arg Trp Ala Val Ala Pro Cys Arg Ala  
 195 200 205

193

Glu Lys Leu Met Cys Ser Ser Ser Arg Ser  
 210 215

<210> 262  
 <211> 104  
 <212> PRT  
 <213> Homo sapien

<400> 262

Met Pro Ser Phe Phe Cys Phe Ser Ile Ser Leu Ile Arg Asp Trp Lys  
 1 5 10 15

Val Ser Ile Arg Ser Asn Thr Asp Phe Ile Val Ile Gly Thr Asn Cys  
 20 25 30

Ser Pro Thr Thr Pro Tyr Ser Ala Ser Ser Ile Thr Leu Leu Cys Glu  
 35 40 45

Ile Leu Arg Asn Gly Leu Pro Leu Gln Gly Leu Asn Leu Pro Tyr Leu  
 50 55 60

Arg Phe Glu Ser Ser Val Leu Phe Cys Ile Cys Phe Lys Tyr Leu Gly  
 65 70 75 80

Ser Val Thr His Ala Asn Met Thr Cys Pro Val Gln Ala Thr Leu Gly  
 85 90 95

Ile His Ile Ser His Val Ser Ser  
 100

<210> 263  
 <211> 260  
 <212> PRT  
 <213> Homo sapien

<400> 263

Glu Lys Lys Lys Lys Met Lys Asn Glu Asn Ala Asp Lys Leu Leu Lys  
 1 5 10 15

Ser Glu Lys Gln Met Lys Lys Ser Glu Lys Lys Ser Lys Gln Glu Lys  
 20 25 30

Glu Lys Ser Lys Lys Lys Lys Gly Gly Lys Thr Glu Gln Asp Gly Tyr  
 35 40 45

Gln Lys Pro Thr Asn Lys His Phe Thr Gln Ser Pro Lys Lys Ser Val

194

50

55

60

Ala Asp Leu Leu Gly Ser Phe Glu Gly Lys Arg Arg Leu Leu Leu Ile  
 65 70 75 80

Thr Ala Pro Lys Ala Glu Asn Asn Met Tyr Val Gln Gln Arg Asp Glu  
 85 90 95

Tyr Leu Glu Ser Phe Cys Lys Met Ala Thr Arg Lys Ile Ser Val Ile  
 100 105 110

Thr Ile Phe Gly Pro Val Asn Asn Ser Thr Met Lys Ile Asp His Phe  
 115 120 125

Gln Leu Asp Asn Glu Lys Pro Met Arg Val Val Asp Asp Glu Asp Leu  
 130 135 140

Val Asp Gln Arg Leu Ile Ser Glu Leu Arg Lys Glu Tyr Gly Met Thr  
 145 150 155 160

Tyr Asn Asp Phe Phe Met Val Leu Thr Asp Val Asp Leu Arg Val Lys  
 165 170 175

Gln Tyr Tyr Glu Val Pro Ile Thr Met Lys Ser Val Phe Asp Leu Ile  
 180 185 190

Asp Thr Phe Gln Ser Arg Ile Lys Asp Met Glu Lys Gln Lys Lys Glu  
 195 200 205

Gly Ile Val Cys Lys Glu Asp Lys Lys Gln Ser Leu Glu Asn Phe Leu  
 210 215 220

Ser Arg Phe Arg Trp Arg Arg Arg Leu Leu Val Ile Ser Ala Pro Asn  
 225 230 235 240

Asp Glu Asp Trp Ala Tyr Ser Gln Gln Leu Ser Ala Leu Ser Gly Gln  
 245 250 255

Ala Cys Thr Leu  
 260

<210> 264

<211> 62

<212> PRT

<213> Homo sapien

195

&lt;400&gt; 264

Met Ser Gly Phe Ile Tyr Val Leu Glu Lys Asp His Leu Lys Lys Ile  
 1 5 10 15

Asn Thr Phe Ser Thr Thr Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
 20 25 30

Arg Arg Gly Gly Glu Pro Gly Ala Gln Ser Gly Pro Arg Gly Ala Asn  
 35 40 45

Trp Val Leu Pro Ala His Ile Pro Pro Lys Tyr Trp His Thr  
 50 55 60

&lt;210&gt; 265

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 265

Met Leu Gln Leu Asn Thr Arg Phe Tyr Phe Leu Ser Asn Cys Gly Phe  
 1 5 10 15

Val Phe Ile Tyr His Pro Leu Phe Ile Pro Phe Leu Thr His Thr Leu  
 20 25 30

Cys Arg Ala Ser Gly Ile Tyr Tyr Ser Thr Val Cys Leu Cys Lys Arg  
 35 40 45

Leu Ser Val Leu Ala Ser Thr Tyr Glu Arg Met His Ala Lys Phe Cys  
 50 55 60

Leu Ser Met Pro Gly Leu Ile Ser Leu Lys Gln Asn Asp Leu Arg Val  
 65 70 75 80

Pro Ser Met Leu Phe Ile Leu Pro Asn  
 85

&lt;210&gt; 266

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 266

Met Thr Ser Arg Trp Leu Asn Phe Ser Cys Leu Trp Cys Phe Gly Pro  
 1 5 10 15

Asn Ser Thr Gly Gln His His Asp His Met Glu Thr Tyr Phe Trp Lys  
20 25 30

Gln Asn Phe Asn Phe Ile  
35

```
<210> 267
<211> 111
<212> PRT
<213> Homo sapien
```

<400> 267

Asn Asp Leu Asp Arg Tyr Asn Pro Leu Ser Ser Gln Arg Leu Val Arg  
1 5 10 15

Asn Ala Leu Ala His Val Gly Ala Lys Glu Arg Glu Leu Ser Trp Ala  
20 25 30

His Ser Glu Ser Phe Ala Ala Leu Cys Arg Tyr Gly Lys Arg Glu Phe  
35 40 45

Lys Ile Gly Gly Glu Leu Arg Ile Gly Lys Gln Pro Tyr Arg Leu Gln  
50 55 60

Ile Gln Leu Ser Ala Gln Arg Ser His Thr Leu Glu Phe Gln Ser Leu  
65 70 75 80

Glu Asp Leu Ile Met Gly Glu Ala Thr Gln Arg Pro Arg Ser Gly Ala  
85 90 95

Arg Pro Val Leu Gln Glu Leu Ala Thr His Leu His Pro Ala Glu  
100 105 110

```
<210> 268
<211> 60
<212> PRT
<213> Homo sapien
```

<400> 268

Met Val Asn Thr Val Leu Leu Ser Leu Lys Ile Ser Leu Phe Cys Pro  
1 5 10 15

His Gln Leu Phe Tyr Cys Ser Val Leu Arg Lys Pro Asn Ser Cys Val  
20 25 30



197

Phe Phe Pro Ser Leu Leu Ile Leu Ser Cys Val Pro Ser Gly Lys Cys  
35 40 45

His Tyr Phe Leu Asp Ile Leu Asn Leu Leu Phe Leu  
50 55 60

```
<210> 269
<211> 72
<212> PRT
<213> Homo sapien
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<400> 269

Met Cys Leu Cys Ile Leu Val Ser Lys Leu Arg Thr Ser Asp Glu Leu  
1 5 10 15

Pro Val Val Pro Ser Tyr Cys Arg Arg Leu Glu Val Arg Gly Ile Ser  
20 25 30

Ala Ser Thr Arg Glu Ala Glu Val Ala Ser Glu Pro Thr Ile Met Thr  
35 40 45

Ala Cys Thr Pro Ser Leu Ala Thr Val Arg Glu Leu Leu Ser Gln Ile  
50 55 60

Lys Arg Lys Gln Ser Leu Leu Ser  
65 70

```
<210> 270
<211> 152
<212> PRT
<213> Homo sapien
```

<400> 270

Gly Ser Leu Gly Gly Glu Pro Gly Val Ser Cys Leu Lys Met His Ser  
1 5 10 15

Asp Ala Ala Ala Val Asn Phe Gln Leu Asn Ser His Leu Ser Thr Leu  
20 25 30

Ala Asn Ile His Lys Ile Tyr His Thr Leu Asn Lys Leu Asn Leu Thr  
35 40 45

Glu Asp Ile Gly Gln Asp Asp His Gln Thr Gly Ser Leu Arg Ser Cys  
50 55 60

198

Ser Ser Ser Asp Cys Phe Asn Lys Val Met Pro Pro Arg Lys Lys Arg  
 65 70 75 80

Arg Pro Ala Ser Gly Asp Asp Leu Ser Ala Lys Lys Ser Arg His Asp  
 85 90 95

Ser Met Tyr Arg Lys Tyr Asp Ser Thr Arg Ile Lys Thr Glu Glu Glu  
 100 105 110

Ala Phe Ser Ser Lys Arg Cys Leu Glu Trp Phe Tyr Glu Tyr Ala Gly  
 115 120 125

Thr Asp Asp Val Val Gly Pro Glu Gly Met Glu Lys Phe Cys Glu Asp  
 130 135 140

Ile Gly Val Glu Pro Glu Asn Val  
 145 150

<210> 271  
 <211> 52  
 <212> PRT  
 <213> Homo sapien

<400> 271

Met Glu Pro His Ile Met Lys Phe Asn Ser His Val Lys Thr Phe Cys  
 1 5 10 15

Ile Val Gly Cys Gln Lys Tyr Leu Pro Lys Leu Ser Phe Asp Leu Ser  
 20 25 30

Glu Trp Gly Trp Leu Leu Pro Ile Leu Gln Phe Val Ser Gln Ala Trp  
 35 40 45

Arg Asn Gln Ala  
 50

<210> 272  
 <211> 449  
 <212> PRT  
 <213> Homo sapien

<400> 272

Met Val Met Glu Lys Pro Ser Pro Leu Leu Val Gly Arg Glu Phe Val  
 1 5 10 15

Arg Gln Tyr Tyr Thr Leu Leu Asn Lys Ala Pro Glu Tyr Leu His Arg

199

20

25

30

Phe Tyr Gly Arg Asn Ser Ser Tyr Val His Gly Gly Val Asp Ala Ser  
 35 40 45

Gly Lys Pro Gln Glu Ala Val Tyr Gly Gln Asn Asp Ile His His Lys  
 50 55 60

Val Leu Ser Leu Asn Phe Ser Glu Cys His Thr Lys Ile Arg His Val  
 65 70 75 80

Asp Ala His Ala Thr Leu Ser Asp Gly Val Val Val Gln Val Met Gly  
 85 90 95

Leu Leu Ser Asn Ser Gly Gln Pro Glu Arg Lys Phe Met Gln Thr Phe  
 100 105 110

Val Leu Ala Pro Glu Gly Ser Val Pro Asn Lys Phe Tyr Val His Asn  
 115 120 125

Asp Met Phe Arg Tyr Glu Asp Glu Val Phe Gly Asp Ser Glu Pro Glu  
 130 135 140

Leu Asp Glu Glu Ser Glu Asp Glu Val Glu Glu Glu Gln Glu Glu Arg  
 145 150 155 160

Gln Pro Ser Pro Glu Pro Val Gln Glu Asn Ala Asn Ser Gly Tyr Tyr  
 165 170 175

Glu Ala His Pro Val Thr Asn Gly Ile Glu Glu Pro Leu Glu Glu Ser  
 180 185 190

Ser His Glu Pro Glu Pro Glu Pro Glu Ser Glu Thr Lys Thr Glu Glu  
 195 200 205

Leu Lys Pro Gln Val Glu Glu Lys Asn Leu Glu Glu Leu Glu Glu Lys  
 210 215 220

Ser Thr Thr Pro Pro Pro Ala Glu Pro Val Ser Leu Pro Gln Glu Pro  
 225 230 235 240

Pro Lys Pro Arg Val Glu Ala Lys Pro Glu Val Gln Ser Gln Pro Pro  
 245 250 255

200

Arg Val Arg Glu Gln Arg Pro Arg Glu Arg Pro Gly Phe Pro Pro Arg  
 260 265 270  
 Gly Pro Arg Pro Gly Arg Gly Asp Met Glu Gln Asn Asp Ser Asp Asn  
 275 280 285  
 Arg Arg Ile Ile Arg Tyr Pro Asp Ser His Gln Leu Phe Val Gly Asn  
 290 295 300  
 Leu Pro His Asp Ile Asp Glu Asn Glu Leu Lys Glu Phe Phe Met Ser  
 305 310 315 320  
 Phe Gly Asn Val Val Glu Leu Arg Ile Asn Thr Lys Gly Val Gly Gly  
 325 330 335  
 Lys Leu Pro Asn Phe Gly Phe Val Val Phe Asp Asp Ser Glu Pro Val  
 340 345 350  
 Gln Arg Ile Leu Ile Ala Lys Pro Ile Met Phe Arg Gly Glu Val Arg  
 355 360 365  
 Leu Asn Val Glu Glu Lys Lys Thr Arg Ala Ala Arg Glu Arg Glu Thr  
 370 375 380  
 Arg Gly Gly Gly Asp Asp Arg Arg Asp Ile Arg Arg Asn Asp Arg Gly  
 385 390 395 400  
 Pro Gly Gly Pro Arg Gly Ile Val Gly Gly Gly Met Met Arg Asp Arg  
 405 410 415  
 Asp Gly Arg Gly Pro Pro Pro Arg Gly Gly Met Ala Gln Lys Leu Gly  
 420 425 430  
 Ser Gly Arg Gly Thr Gly Gln Met Glu Gly Arg Phe Thr Gly Gln Arg  
 435 440 445

Arg

<210> 273  
 <211> 63  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 273

## 201

Met Cys Cys Asp Val Ser Glu Arg Ala Glu Phe Arg Leu Val Ser Ala  
1 5 10 15

Arg Cys Ser Phe Ser His Pro Arg Thr Val Ala Arg Leu Leu Leu Arg .  
20 25 30

His Pro Gly Gln Leu Pro Leu Pro Phe Gln Trp Gly Leu Thr Trp Leu  
35 40 45

Pro Ser Leu Ala Ala Asn Arg Arg Ala Pro Gln His Ser Arg Ser  
50 55 60

<210> 274  
<211> 60  
<212> PRT  
<213> Homo sapien

<400> 274

Met Asp Pro Gly Arg Tyr Cys Leu Val Leu Gln Glu Leu Met Gln Phe  
1 5 10 15

His Ser Glu Ala Cys Lys Ile Leu Asn Phe Arg Asp Asn Arg Pro Asp  
20 25 30

Thr Phe Leu Ile Ser Phe Tyr Ser Leu Met Ser Asn Asn Thr Ile Phe  
35 40 45

Lys Asn Met Val Leu Ile Cys Leu Ala Ser Asn Leu  
50 55 60

<210> 275  
<211> 111  
<212> PRT  
<213> Homo sapien

<400> 275

Lys Leu Ile Val Tyr Pro Pro Pro Pro Ala Lys Gly Gly Ile Ser Val  
1 5 10 15

Thr Asn Glu Asp Leu His Cys Leu Asn Glu Gly Glu Phe Leu Asn Asp  
20 25 30

Val Ile Ile Asp Phe Tyr Leu Lys Tyr Leu Val Leu Glu Lys Leu Lys  
35 40 45

Lys Glu Asp Ala Asp Arg Ile His Ile Phe Ser Ser Phe Phe Tyr Lys

202

50

55

60

Arg Leu Asn Gln Arg Glu Arg Arg Asn His Glu Thr Thr Asn Leu Ser  
 65 70 75 80

Ile Gln Gln Lys Arg His Gly Arg Val Lys Thr Trp Thr Arg His Val  
 85 90 95

Asp Ile Phe Glu Lys Asp Phe Ile Phe Val Pro Leu Asn Glu Ala  
 100 105 110

<210> 276  
 <211> 97  
 <212> PRT  
 <213> Homo sapien

<400> 276

Met Ser Gln Asp Thr Ser Arg Ser Gln Glu Arg Ala Ala Gly Pro Gln  
 1 5 10 15

Arg Thr Arg Arg Arg Pro Arg Thr Trp Ser Gly Gly Val Glu Pro Thr  
 20 25 30

Ala Ala Ala Pro Trp Ala Ala Ala Met Ala His Thr Gly Arg His Gly  
 35 40 45

Ser Gly Ala Ala Ala Thr Ala Ser Ser Thr Arg Gly Asp Gly Ala Ala  
 50 55 60

Arg Arg Gly Ala Ala Arg Gly Thr Asp Ala Ala Glu Arg Arg Arg Ala  
 65 70 75 80

Ala Ser Arg Gly Ala Ala Glu Pro Lys Ala Thr Ala Ser Gly Gly Gly  
 85 90 95

Gly

<210> 277  
 <211> 76  
 <212> PRT  
 <213> Homo sapien

<400> 277

Met Gly Ser Cys Pro Leu Trp Val Arg Ser Ser Thr Cys Arg Val Glu  
 1 5 10 15

203

Val Gly Tyr Val His Thr Phe Asn Asp Asn Leu His Ile Ser Ala Pro  
                   20                  25                  30

Thr Gly Pro Lys Leu Phe Leu Gly Phe Lys Val Val Val Cys Leu Phe  
                   35                  40                  45

Phe Ser Phe Phe Phe Phe Phe Phe Phe Gly Glu Val Glu Phe Gly  
           50                  55                  60

Ser Gly Trp Pro Arg Cys Gly Val Cys Lys Gly Arg  
   65                  70                  75

<210> 278  
 <211> 20  
 <212> PRT  
 <213> Homo sapien

<400> 278

Met Glu Asp Gln Ile Ile Leu Asn Tyr Ile Ser Ile Val Pro Gly Lys  
   1                  5                  10                  15

Thr Gln Val Leu  
                   20

<210> 279  
 <211> 24  
 <212> PRT  
 <213> Homo sapien

<400> 279

Met Val His Leu Met His Ala Arg Ala Arg Ala Ser Cys Asp Gly Cys  
   1                  5                  10                  15

Val Val Ala Ala Glu Val His Val  
                   20

<210> 280  
 <211> 101  
 <212> PRT  
 <213> Homo sapien

<400> 280

Leu Phe Phe Phe Lys Lys Phe Ile Leu Arg Trp Ser Leu Thr Leu Ser  
   1                  5                  10                  15

204

Leu Arg Leu Glu Cys Ser Asp Ser Ile Ser Ala His Cys Asn Leu Arg  
 20 25 30

Leu Pro Gly Leu Ser Asn Phe Cys Ala Ser Ala Ser Gln Val Ser Glu  
 35 40 45

Ile Thr Gly Val Cys His His Thr Gln Leu Phe Phe Ile Phe Tyr Phe  
 50 55 60

Ala Ala Lys Met Gly Phe Arg His Val Gly Arg Thr Gly Leu Glu Leu  
 65 70 75 80

Leu Ala Ser Ser Gly Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly Ile  
 85 90 95

Thr Gly Val Ser His  
 100

<210> 281  
 <211> 43  
 <212> PRT  
 <213> Homo sapien

<400> 281

Met Trp Gly His Gly Leu Asp Asp Gly Leu His Arg Ser Phe His Leu  
 1 5 10 15

Cys Glu Ser Lys Ser Gly Gln Ser Ala Arg Thr Gln Ser Leu Thr Leu  
 20 25 30

Gly Gln Leu Leu Arg Thr Asn Pro Gln His Leu  
 35 40

<210> 282  
 <211> 46  
 <212> PRT  
 <213> Homo sapien

<400> 282

Met Ala Gly Asn Ile His Pro Gly Thr Phe Gly Pro Gly Ser Pro His  
 1 5 10 15

Leu Phe Phe Leu Cys Gly Val Val Ala Phe Phe Leu Phe Ile Val Ala  
 20 25 30

Arg Glu Ala Lys Ile Tyr Ser Phe Ser Met Asn Pro Asn Met



205

35

40

45

<210> 283  
 <211> 70  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 283

Met Pro Gly Ser His Leu Cys Met Phe Asn Thr Val Thr His Asp Val  
 1 5 10 15

Ile Thr Glu Trp Arg Arg Trp Lys Gly Pro Cys Arg Ser Phe Ser Trp  
 20 25 30

His Pro Asn Phe Thr Glu Gly Glu Leu Arg Pro Glu Leu Arg Asp Val  
 35 40 45

Leu Arg Ile Pro Glu Ser His Ser Ser Val Arg Ser Val Ile His Lys  
 50 55 60

Glu Val Ile Ile Lys Val  
 65 70

<210> 284  
 <211> 49  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 284

Met Ser Ser Ser Leu Phe Ala Phe Leu Leu Thr Tyr Phe Val Val Phe  
 1 5 10 15

Lys Asp Cys Ala Gly Asp Ile Leu Glu Gly Ile Asn Gly Leu His Ser  
 20 25 30

Lys Arg Cys Gly Leu Ser Lys Leu Phe Ser Val Phe Ile Thr Glu Thr  
 35 40 45

Asp

<210> 285  
 <211> 1544  
 <212> PRT  
 <213> Homo sapien

&lt;400&gt; 285

Ser Asp Ser Asn  
15

Ser Glu Lys Glu  
30

Trp Leu Ala Thr  
45

Ser Ser His Cys

sn Leu Arg Gly  
80

ro Tyr Gln Lys  
95

rp Ile Gln Tyr  
110

ly Ala Gln Val  
125

eu Ile Ser Tyr

in Arg His Trp  
160

.y Ile Trp Thr  
175

y Gln Val Ile  
190

u Leu His Glu  
205

e Phe Leu Val

r Ala Pro Pro  
240

207

Gln Asp Gly Pro Ala Ala Tyr Pro Ile Pro Val Gln Asn Ile Lys Pro  
 245 250 255

Leu Leu Thr Val Ser Phe Thr Ser Gly Asp Ile Ser Leu Met Asn Asn  
 260 265 270

Tyr Asp Asp Leu Ser Pro Thr Val Ile Arg Ser Gly Leu Lys Glu Val  
 275 280 285

Val Ala Gln Trp Cys Thr Gln Gly Asp Leu Leu Ala Val Ala Gly Met  
 290 295 300

Glu Arg Gln Thr Gln Leu Gly Glu Leu Pro Asn Gly Pro Leu Leu Lys  
 305 310 315 320

Ser Ala Met Val Lys Phe Tyr Asn Val Arg Gly Glu His Ile Phe Thr  
 325 330 335

Leu Asp Thr Leu Val Gln Arg Pro Ile Ile Ser Ile Cys Trp Gly His  
 340 345 350

Arg Asp Ser Arg Leu Leu Met Ala Ser Gly Pro Ala Leu Tyr Val Val  
 355 360 365

Arg Val Glu His Arg Val Ser Ser Leu Gln Leu Leu Cys Gln Gln Ala  
 370 375 380

Ile Ala Ser Thr Leu Arg Glu Asp Lys Asp Val Ser Lys Leu Thr Leu  
 385 390 395 400

Pro Pro Arg Leu Cys Ser Tyr Leu Ser Thr Ala Phe Ile Pro Thr Ile  
 405 410 415

Lys Pro Pro Ile Pro Asp Pro Asn Asn Met Arg Asp Phe Val Ser Tyr  
 420 425 430

Pro Ser Ala Gly Asn Glu Arg Leu His Cys Thr Met Lys Arg Thr Glu  
 435 440 445

Asp Asp Pro Glu Val Gly Gly Pro Cys Tyr Thr Leu Tyr Leu Glu Tyr  
 450 455 460

Leu Gly Gly Leu Val Pro Ile Leu Lys Gly Arg Arg Ile Ser Lys Leu

208

465		470		475		480									
Arg	Pro	Glu	Phe	Val	Ile	Met	Asp	Pro	Arg	Thr	Asp	Ser	Lys	Pro	Asp
				485					490					495	
Glu	Ile	Tyr	Gly	Asn	Ser	Leu	Ile	Ser	Thr	Val	Ile	Asp	Ser	Cys	Asn
			500					505					510		
Cys	Ser	Asp	Ser	Ser	Asp	Ile	Glu	Leu	Ser	Asp	Asp	Trp	Ala	Ala	Lys
		515					520					525			
Lys	Ser	Pro	Lys	Ile	Ser	Arg	Ala	Ser	Lys	Ser	Pro	Lys	Leu	Pro	Arg
		530				535					540				
Ile	Ser	Ile	Glu	Ala	Arg	Lys	Ser	Pro	Lys	Leu	Pro	Arg	Ala	Ala	Gln
545					550					555					560
Glu	Leu	Ser	Arg	Ser	Pro	Arg	Leu	Pro	Leu	Arg	Lys	Pro	Ser	Val	Gly
				565					570					575	
Ser	Pro	Ser	Leu	Thr	Arg	Arg	Glu	Phe	Pro	Phe	Glu	Asp	Ile	Thr	Gln
			580					585					590		
His	Asn	Tyr	Leu	Ala	Gln	Val	Thr	Ser	Asn	Ile	Trp	Gly	Thr	Lys	Phe
		595					600					605			
Lys	Ile	Val	Gly	Leu	Ala	Ala	Phe	Leu	Pro	Thr	Asn	Leu	Gly	Ala	Val
	610					615					620				
Ile	Tyr	Lys	Thr	Ser	Leu	Leu	His	Leu	Gln	Pro	Arg	Gln	Met	Thr	Ile
625					630					635				640	
Tyr	Leu	Pro	Glu	Val	Arg	Lys	Ile	Ser	Met	Asp	Tyr	Ile	Asn	Leu	Pro
				645					650					655	
Val	Phe	Asn	Pro	Asn	Val	Phe	Ser	Glu	Asp	Glu	Asp	Asp	Leu	Pro	Val
			660					665					670		
Thr	Gly	Ala	Ser	Gly	Val	Pro	Glu	Asn	Ser	Pro	Pro	Cys	Thr	Val	Asn
		675					680					685			
Ile	Pro	Ile	Ala	Pro	Ile	His	Ser	Ser	Ala	Gln	Ala	Met	Ser	Pro	Thr
	690					695					700				

209

Gln Ser Ile Gly Leu Val Gln Ser Leu Leu Ala Asn Gln Asn Val Gln  
 705 710 715 720

Leu Asp Val Leu Thr Asn Gln Thr Thr Ala Val Gly Thr Ala Glu His  
 725 730 735

Ala Gly Asp Arg Cys His Pro Val Thr Gln Val Ser Asn Arg Tyr Ser  
 740 745 750

Asn Pro Gly Gln Val Ile Phe Gly Ser Val Glu Met Gly Arg Ile Ile  
 755 760 765

Gln Asn Pro Pro Pro Leu Ser Leu Pro Pro Pro Pro Gln Gly Pro Met  
 770 775 780

Gln Leu Ser Thr Val Gly His Gly Asp Arg Asp His Glu His Leu Gln  
 785 790 795 800

Lys Ser Ala Lys Ala Leu Arg Pro Thr Pro Gln Leu Ala Ala Glu Gly  
 805 810 815

Asp Ala Val Val Phe Ser Ala Pro Gln Glu Val Gln Val Thr Lys Ile  
 820 825 830

Asn Pro Pro Pro Pro Tyr Pro Gly Thr Ile Pro Ala Ala Pro Thr Thr  
 835 840 845

Ala Ala Pro Pro Pro Pro Leu Pro Pro Pro Gln Pro Pro Val Asp Val  
 850 855 860

Cys Leu Lys Lys Gly Asp Phe Ser Leu Tyr Pro Thr Ser Val His Tyr  
 865 870 875 880

Gln Thr Pro Leu Gly Tyr Glu Arg Ile Thr Thr Phe Asp Ser Ser Gly  
 885 890 895

Asn Val Glu Glu Val Cys Arg Pro Arg Thr Arg Met Leu Cys Ser Gln  
 900 905 910

Asn Thr Tyr Thr Leu Pro Gly Pro Gly Ser Ser Ala Thr Leu Arg Leu  
 915 920 925

Thr Ala Thr Glu Lys Lys Val Pro Gln Pro Cys Ser Ser Ala Thr Leu  
 930 935 940

210

Asn Arg Leu Thr Val Pro Arg Tyr Ser Ile Pro Thr Gly Asp Pro Pro  
 945 950 955 960

Pro Tyr Pro Glu Ile Ala Ser Gln Leu Ala Gln Gly Arg Gly Ala Ala  
 965 970 975

Gln Arg Ser Asp Asn Ser Leu Ile His Ala Thr Leu Arg Arg Asn Asn  
 980 985 990

Arg Glu Ala Thr Leu Lys Met Ala Gln Leu Ala Asp Ser Pro Arg Ala  
 995 1000 1005

Pro Leu Gln Pro Leu Ala Lys Ser Lys Gly Gly Pro Gly Gly Val  
 1010 1015 1020

Val Thr Gln Leu Pro Ala Arg Pro Pro Pro Ala Leu Tyr Thr Cys  
 1025 1030 1035

Ser Gln Cys Ser Gly Thr Gly Pro Ser Ser Gln Pro Gly Ala Ser  
 1040 1045 1050

Leu Ala His Thr Ala Ser Ala Ser Pro Leu Ala Ser Gln Ser Ser  
 1055 1060 1065

Tyr Ser Leu Leu Ser Pro Pro Asp Ser Ala Arg Asp Arg Thr Asp  
 1070 1075 1080

Tyr Val Asn Ser Ala Phe Thr Glu Asp Glu Ala Leu Ser Gln His  
 1085 1090 1095

Cys Gln Leu Glu Lys Pro Leu Arg His Pro Pro Leu Pro Glu Ala  
 1100 1105 1110

Ala Val Thr Leu Lys Arg Pro Pro Pro Tyr Gln Trp Asp Pro Met  
 1115 1120 1125

Leu Gly Glu Asp Val Trp Val Pro Gln Glu Arg Thr Ala Gln Thr  
 1130 1135 1140

Ser Gly Pro Asn Pro Leu Lys Leu Ser Ser Leu Met Leu Ser Gln  
 1145 1150 1155

Gly Gln His Leu Asp Val Ser Arg Leu Pro Phe Ile Ser Pro Lys  
 1160 1165 1170

211

Ser	Pro	Ala	Ser	Pro	Thr	Ala	Thr	Phe	Gln	Thr	Gly	Tyr	Gly	Met
1175						1180					1185			
Gly	Val	Pro	Tyr	Pro	Gly	Ser	Tyr	Asn	Asn	Pro	Pro	Leu	Pro	Gly
1190						1195					1200			
Val	Gln	Ala	Pro	Cys	Ser	Pro	Lys	Asp	Ala	Leu	Ser	Pro	Thr	Gln
1205						1210					1215			
Phe	Ala	Gln	Gln	Glu	Pro	Ala	Val	Val	Leu	Gln	Pro	Leu	Tyr	Pro
1220						1225					1230			
Pro	Ser	Leu	Ser	Tyr	Cys	Thr	Leu	Pro	Pro	Met	Tyr	Pro	Gly	Ser
1235						1240					1245			
Ser	Thr	Cys	Ser	Ser	Leu	Gln	Leu	Pro	Pro	Val	Ala	Leu	His	Pro
1250						1255					1260			
Trp	Ser	Ser	Tyr	Ser	Ala	Cys	Pro	Pro	Met	Gln	Asn	Pro	Gln	Gly
1265						1270					1275			
Thr	Leu	Pro	Pro	Lys	Pro	His	Leu	Val	Val	Glu	Lys	Pro	Leu	Val
1280						1285					1290			
Ser	Pro	Pro	Pro	Ala	Asp	Leu	Gln	Ser	His	Leu	Gly	Thr	Glu	Val
1295						1300					1305			
Met	Val	Glu	Thr	Ala	Asp	Asn	Phe	Gln	Glu	Val	Leu	Ser	Leu	Thr
1310						1315					1320			
Glu	Ser	Pro	Val	Pro	Gln	Arg	Thr	Glu	Lys	Phe	Gly	Lys	Lys	Asn
1325						1330					1335			
Arg	Lys	Arg	Leu	Asp	Ser	Arg	Ala	Glu	Glu	Gly	Ser	Val	Gln	Ala
1340						1345					1350			
Ile	Thr	Glu	Gly	Lys	Val	Lys	Lys	Glu	Ala	Arg	Thr	Leu	Ser	Asp
1355						1360					1365			
Phe	Asn	Ser	Leu	Ile	Ser	Ser	Pro	His	Leu	Gly	Arg	Glu	Lys	Lys
1370						1375					1380			
Lys	Val	Lys	Ser	Gln	Lys	Asp	Gln	Leu	Lys	Ser	Lys	Lys	Leu	Asn

212

1385

1390

1395

Lys Thr Asn Glu Phe Gln Asp Ser Ser Glu Ser Glu Pro Glu Leu  
 1400 1405 1410

Phe Ile Ser Gly Asp Glu Leu Met Asn Gln Ser Gln Gly Ser Arg  
 1415 1420 1425

Lys Gly Trp Lys Ser Lys Arg Ser Pro Arg Ala Ala Gly Glu Leu  
 1430 1435 1440

Glu Glu Ala Lys Cys Arg Arg Ala Ser Glu Lys Glu Asp Gly Arg  
 1445 1450 1455

Leu Gly Ser Gln Gly Phe Val Tyr Val Met Ala Asn Lys Gln Pro  
 1460 1465 1470

Leu Trp Asn Glu Ala Thr Gln Val Tyr Gln Leu Asp Phe Gly Gly  
 1475 1480 1485

Arg Val Thr Gln Glu Ser Ala Lys Asn Phe Gln Ile Glu Leu Glu  
 1490 1495 1500

Gly Arg Gln Val Met Gln Phe Gly Arg Ile Asp Gly Ser Ala Tyr  
 1505 1510 1515

Ile Leu Asp Phe Gln Tyr Pro Phe Ser Ala Val Gln Ala Phe Ala  
 1520 1525 1530

Val Ala Leu Ala Asn Val Thr Gln Arg Leu Lys  
 1535 1540

&lt;210&gt; 286

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 286

Met Gly Asn Gly Ala Thr Gln Lys Gln Leu Pro Asn Leu Arg Asn Asn  
 1 5 10 15

Ser Phe Val Val Tyr Phe Leu Val Leu Val Gly Ala Leu Tyr Arg Asp  
 20 25 30

Thr Ala Ile Phe Leu Ala Gln Met Ser Leu Leu Glu Ser Thr Val Val



213

35

40

45

Ile Leu Leu Val Arg Leu Arg Thr  
 50 55

<210> 287  
 <211> 77  
 <212> PRT  
 <213> Homo sapien

<400> 287

Met Leu Leu Ala Val Arg Thr Thr Val Ile Cys Leu Gln Ser Cys Cys  
 1 5 10 15

Cys Arg Ile Gln Arg Thr Ala Thr Ile Thr Leu Asn Cys Phe Ala Leu  
 20 25 30

Ser Ser Ile Phe Asp Tyr Tyr Ile Ser His Asn Ile Thr Ile Ser His  
 35 40 45

Ser Ser Asn Tyr Ser Ala Gln Ile His Glu His Val Pro Ala Arg Ala  
 50 55 60

Ala Ala Arg Ser Ile Thr Trp Arg Arg Ser Ala Cys Ile  
 65 70 75

<210> 288  
 <211> 45  
 <212> PRT  
 <213> Homo sapien

<400> 288

Met Tyr Leu Gly Gln Leu Gly Asn His Arg Leu Lys Lys Leu Thr Leu  
 1 5 10 15

Val Ile Thr Arg Val Val Ser Asp Tyr Lys Gln His Ile Ile Asn Pro  
 20 25 30

Thr Ala Leu Ile Leu Ala Gln Arg Gln Asn Trp Thr Phe  
 35 40 45

<210> 289  
 <211> 44  
 <212> PRT  
 <213> Homo sapien

<400> 289

214

Met Lys Ala Leu Leu Cys Phe Leu Phe Tyr Ser Asp His Gln Thr Asp  
 1 5 10 15

Leu Ala Thr Leu Ile Val Lys Asn Glu Pro His Ser Ser Pro Gly Leu  
 20 25 30

Gly Leu Trp Arg Glu Met Asn Phe Leu Leu Glu Met  
 35 40

<210> 290  
 <211> 50  
 <212> PRT  
 <213> Homo sapien

<400> 290

Met Phe Arg Thr Ser Ser Tyr Arg Leu Leu Ile Tyr Lys Val Pro Val  
 1 5 10 15

Ala Val Thr Pro Thr Arg Lys Thr Trp Asn Cys Lys Gln Ala Gly Val  
 20 25 30

Thr Ser Val Thr Ser Asp Thr Val Gln Pro Glu Val Arg Phe Leu Phe  
 35 40 45

Trp Gly  
 50

<210> 291  
 <211> 44  
 <212> PRT  
 <213> Homo sapien

<400> 291

Met Ser Gln Trp Pro Val Ala Ser Lys Leu Val Gly Lys Glu Lys Thr  
 1 5 10 15

Phe Leu Phe Lys Gln Arg Lys Gly Phe Gly Glu Lys Thr Gly Ser Gly  
 20 25 30

Ser Gly Glu Val Phe Val Met Leu Gly Asp Arg Leu  
 35 40

<210> 292  
 <211> 61  
 <212> PRT  
 <213> Homo sapien

215

&lt;400&gt; 292

Met Val His Tyr Arg Lys Glu Lys Lys Thr Ser Val Ser Glu Trp Gln  
 1 5 10 15

Ile Leu Ile Ile Cys Ser Ser His Leu Phe Ser Ser Glu Asn His Ile  
 20 25 30

Thr Pro Glu Tyr Leu Pro Gly Arg Ile His His Thr Ala Pro Leu Glu  
 35 40 45

Pro Ala Ser Lys Asp Pro Phe Ala His Ile Val Ile Leu  
 50 55 60

&lt;210&gt; 293

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 293

Met Gly Ile Ile Leu Asn Trp Leu Asn Gln Trp Ala Gln Ile Thr Tyr  
 1 5 10 15

Leu Pro Ser Leu Leu Cys Asp Ser Pro Ala Val Thr His Thr Ile His  
 20 25 30

Ile Leu Cys Thr Ser Asn Glu Gln Thr Trp Phe Pro Cys Phe Leu Asp  
 35 40 45

Ile Ser Met Thr Val Ser His Thr Asn Tyr Trp Val Arg Phe Phe Ser  
 50 55 60

Cys Tyr Arg Pro Thr Ser Cys Cys Leu Cys Val Val Leu Gln Lys Leu  
 65 70 75 80

Ser Ile Pro Thr Pro Leu Leu Cys His Leu Gln Glu Ser Gly Ile Val  
 85 90 95

Arg Ser Gln Leu Arg Lys Val Leu Val Pro Leu Thr Gly His Ile Leu  
 100 105 110

&lt;210&gt; 294

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

216

&lt;400&gt; 294

Met Arg Phe Ile Phe Ile Cys Lys Pro Arg Gly Leu Ile Ile Leu Ile  
 1 5 10 15

Leu Tyr Glu Tyr Thr Cys Val Leu Gly Lys Ala Phe Ile Gln Gln Met  
 20 25 30

Pro Thr Thr Tyr Ser Val Pro Arg Pro Arg His Pro Val Thr Ser Trp  
 35 40 45

Arg Pro Ala Arg Ala Cys Ile  
 50 55

&lt;210&gt; 295

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapien

&lt;400&gt; 295

Met Leu Glu Leu Pro Thr Phe Ser Phe Phe Phe Gly Asp Arg Ala  
 1 5 10 15

Ser Leu Cys His Pro Gly Trp Ser Ala Gly Ala Ser Ser Leu Thr His  
 20 25 30

Leu Gln Pro Ser Phe Leu Pro Trp Gly Ala Gly Arg Phe Ser Cys Ala  
 35 40 45

Leu Gln Pro Pro Ser Leu Ala Gly Ile Tyr Arg Ala Leu Leu Gln Val  
 50 55 60

Ser His Ile Phe Ser Glu Lys Phe Leu Asn Trp Pro Pro  
 65 70 75